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Marie-Eve Caty
The University of Western Ontario

Graduate Program in Health and Rehabilitation Sciences

A thesis submitted in partial fulfillment of the requirements for the degree in Doctor of Philosophy

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Reflective practice and professional knowledge: A grounded theory study of
Speech-Language Pathologists working in head and neck cancer rehabilitation

(Thesis format: Integrated Article)

by

Marie-Ève Caty

Graduate Program in Health and Rehabilitation Sciences

A thesis submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

The School of Graduate and Postdoctoral Studies
The University of Western Ontario
London, Ontario, Canada

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Abstract

Reflective practice (RP) is defined in this dissertation as a process of thinking 'about' and 'through' one's doings, such that practitioners become more skillful, and aware of the nature and impact of their performance within their professional practices. Because it is presumed to enable healthcare delivery practices that are more sensitive to patient needs and more in-line with evidence-based practices, RP is frequently noted as an essential attribute of competent clinical practice. Yet, little is known about *the processes* by which RP contributes to the professional learning of health-care practitioners in general, and speech-language pathologists (SLPs) in particular.

This work is comprised of five manuscripts in addition to introductory, methodological and conclusion chapters. The first manuscript presents a case study that contributes to understanding of how Speech-Language Pathology (SLP) clinical experience may be processed through reflection to develop professional knowledge relevant to professional practice in the context of head and neck cancer rehabilitation. The second manuscript, a scoping review, maps the scholarship on reflection and reflective practice in the field of SLP. The third offers a discussion of theoretical underpinnings and key elements of RP and examines their applicability to SLP practice. The fourth manuscript investigates the relevance of RP for SLP, suggesting its potential to: (1) inform the generation of knowledge from practice, (2) balance and contextualize science with patient care, (3) facilitate the integration of theory and practice, (4) link evidence-based practice with clinical expertise, and finally, (5) cultivate ethical practice. The fifth manuscript details the grounded theory study, which examined the ways in which 12 SLPs working in head and neck cancer rehabilitation report using processes of reflection. These include: ongoing iterative questioning, experimenting through trial and error, integrating knowledge from past cases, embracing surprise, thinking out of the box, being in the moment, consulting with others, putting oneself in the patients' shoes, and discerning ethical issues.

This thesis contributes to knowledge about how professional learning can be mediated by the use of RP. It also contributes to the emerging body of theoretical and empirical work on RP, with potential implications across a variety of health professions.

Keywords

Reflective practice; speech-language pathology; professional knowledge; professional learning; head and neck cancer rehabilitation; grounded theory

Co-Authorship Statement

I, Marie-Ève Caty, acknowledge that this thesis includes five integrated manuscripts that evolved as a result of collaborative endeavors. In the five manuscripts, the primary intellectual contributions were made by the first author who: conducted the literature reviews, developed the ethics application, designed the research, researched the methodology, undertook the data collection, transcribed and coded the data, led the data analysis, and led the writing of the manuscripts. The contribution of the co-authors, Dr. Elizabeth Anne Kinsella and Dr. Philip C. Doyle, was primarily through the supervision of the research, theoretical and methodological guidance, reflexive dialogue, data interpretation, and intellectual and editorial support in crafting the work for publication.

Dedication

To my parents, Ginette and Michel:

Thank you for teaching me the value of hard work;

Thank you for affording me so many opportunities to explore, learn and grow;

Thank you for your unconditional love.

To my sister, Véronique:

“(Just) Do It!” – Did you say?

“I Did It!” – Thank you for always being there along the way.

Acknowledgments

"It takes a village to raise a child." African proverb

That piece of wisdom held true for me: Made up of colleagues and friends made over the past years as well as caring faculty members, the Health Professional Education (HPE) community or 'village' helped me to reach each milestone of this PhD journey and inch closer to the scholar I want to be.

The best move I made at the beginning of my PhD journey was to select two incredible supervisors: Dr. Elizabeth Anne Kinsella and Dr. Philip C. Doyle. No matter how much I try to define the influence these *doctoral parents* had on me as a person and as a scholar, I can only capture the half of it. Both had the clarity of vision to steer me successfully through the hurdles and joy of this study. Dr. Kinsella's wealth of knowledge opened me up to the world of reflective practice and led me in the journey of discovery of the social sciences and humanities. Dr. Doyle's genuine wisdom and deep critical and analytical way of looking at ideas guided me to always 'think smarter'. You are both truly empowering and inspiring mentors. I sincerely and heartily thank you both. I look forward to collaborating with you in the years ahead.

Along the way I also benefited from the guidance of my comprehensive committee members: Dr. Marilyn Kertoy and Dr. Doreen Bartlett. Dr. Kertoy was one of the first to see value in my work. Her insightful comments and the conversations we had together made me work through ideas and contributed tremendously to my work. Dr. Bartlett provided excellent comments and carefully read and helped edit my documents. She has also been supportive in her work as an advisory committee member in addition to Dr. Allyson Dykstra. I was truly fortunate to have both of you serve on my advisory committee and thank you both. Along the way, a special thank to Dr. Allan Pitman, with whom I had many conversations, but one in particular that was critical to my work.

There are a number of individuals within the Graduate Program in Health and Rehabilitation Sciences and the School of Communication Sciences and Disorders who have supported and encouraged me in many ways along the path. I wish to express my thanks to Dr. J.B. Orange, Dr. Elizabeth Skarakis-Doyle, Dr. Julie Theurer, and Professor Taslim Moosa.

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I am forever indebted to the following remarkable individuals who have over time provided me with a brain to pick, an ear to listen, or a push in the right direction: Silke Dennhardt, Birgit Prodinger, Stella Ng, Shanon Phelan, Adam Day, Ryan T. DeForge, Niki Kiepek, Magali Morlion, and Jean-François Millaire. I hope to keep in close contact with each of you. I thank you all, and everyone else who knows that they have influenced me, for your support and friendship.

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As I look back on this time, from the more mundane to the significant things I have learned, I am only more convinced that this HPE 'village' was a special place... I hope that the nuggets of great wisdom gained will serve me in the next 'village(s)' in academic life.

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List of Abbreviations

ENT: Ear, Nose and Throat specialists

HNC: Head and Neck Cancer

RP: Reflective Practice

SLP: Speech-Language Pathology

SLP(s): Speech-Language Pathologist(s)

Chapter 1

1. Introduction

“Learning is not finite, but a lifelong process.” (Collins, 2009, p.621)

Lifelong learning is recognized as one of the most important competencies that people must possess in order to successfully meet the challenges of today's worldwide knowledge society. A variety of groups support this claim, including UNESCO's Institute for Lifelong Learning (2014), which stresses that contemporary lifelong learning “takes on a more urgent tone than ever before” (Overview, para. 1). This age of information forces individuals to continually acquire skills and knowledge that permits adjustment to the rapidly evolving needs of the society. The rapidly changing economic and societal demands that professionals must face in their workplace call for a new set of skills for professionals, including those providing rehabilitation services. As Herold, Bennett and Costello (2005) state: “while change is inevitable, preparing rehabilitation professionals to change requires more than updating clinical skills” (p.76). Herold and colleagues (2005) summarized seven core professional activities for assuring the “ongoing survival and quality of rehabilitation” (p.63) in this early period of the 21st century. Pursuing lifelong learning figures among those critical activities, alongside advocacy, practice based on functional outcomes, practice based on evidence, developing emerging markets, using innovative approaches to reach organisational goals, and performing non-clinical work skills.

Professional preparation programs and licensing bodies have recently integrated reflective practice as an essential component of their ongoing certification requirement. This is likely in reaction to, or recognition of, the changing workplace demands and the new needs for students in the 21st century. The importance of preparing students to become lifelong learners has received widespread attention

by professional, regulatory and educational organizations within health care professions, including those of Audiology and Speech-Language Pathology. For example, the Council for Accreditation of Canadian University Programs in Audiology and Speech-Language Pathology (CACUP) (2012) proposed a national competency-based framework which contains the performance expectations of 'continuous learning' under the 'role as scholar'. This emphasizes that today's health care practitioners must acquire not only the necessary knowledge, skills and attitudes of health care professional practitioners but also the necessary skills to become effective lifelong learners. Developing skills as lifelong learners is important at the early stages of professional training, but it is also critical to hone such skills throughout one's professional career (Collins, 2009). In addition to the ability to integrate scientific evidence into service provision, an important lifelong learning skill is the ability to reflect upon and learn from one's practice and experience (Collins, 2009).

Hence, the proposition for the research to follow is that the processes of reflection used by health-care practitioners contribute to the capacity for lifelong professional learning, and consequently, to practitioners' professional knowledge in ways that are often implicit, informal or taken-for-granted. It is proposed that making such processes explicit will contribute to a better understanding of the capacity of reflective practice to assist in professional learning and in the generation of professional practice knowledge significant for clinical practice.

1.1 Background and Problem Statement

For the purposes of this study, reflective practice is defined as a process of thinking 'about' and 'through' one's doings (Schön, 1987), such that practitioners become more skillful, and aware of the nature and impact of their performance within their professional practices (Osterman & Kottkamp, 1993). It is frequently argued that reflective practice enables healthcare delivery that is more sensitive to patient needs and more in-line with evidence-based practices (Bannigan & Moores, 2009; Benner, 2001; Duggan, 2005; Epstein, 1999;

Gustafsson & Fagerberg 2004; Honor Society of Nursing, 2005; Kinsella, 2001). As a result, reflective practice is frequently noted as an essential element of competent clinical practice (Eraut, 1994; Mann, Gordon, & MacLeod, 2009). Yet, little is known about *the processes* by which reflective practice contributes to the professional learning of health-care practitioners in general (Mann, Gordon, & MacLeod, 2009), and in Speech-Language Pathologists (SLPs) in particular (Caty, Kinsella, & Doyle, 2009).

1.2 Rationale

Reflective practices are presumed to contribute positively to the professional learning of practitioners, yet little empirical research exists on this topic, particularly in the context of SLPs working in the clinical area of head and neck cancer rehabilitation. If we continue to expect that health care practitioners use reflective processes, it is crucial that we better understand how processes of reflection contribute to professional learning and to the generation of professional knowledge. In addition, given the lack of scholarly work about reflective practice in Speech-Language Pathology (SLP), a rigorous examination of the concept of reflective practice and consideration of its relevance to the field is both important and timely.

1.3 Study Purpose

The purpose of this study was to investigate reflective practice in the field of SLP by examining: a) a clinical case from Speech-Language Pathology practice, b) the published literature of reflective practice in the field of Speech-Language Pathology, c) the theoretical basis of reflective practice and implications for conceptualizing the construct for Speech-Language Pathology, d) the relevance of reflective practice to the Speech-Language Pathology profession, and e) how reflective processes contribute to the professional learning of Speech-Language Pathologists and the implications of such reflection for the generation of knowledge relevant to one's professional practice. The empirical investigation draws on SLP practitioners' reports of their practice experiences in order to

inductively develop a model of SLPs' reflective practices. It is expected that the theoretical propositions and principles developed will enhance practitioners' ability to use reflective practice to improve their performance, and in turn positively influence the quality of care provided to patients, and the quality of education offered to future students and practitioners.

1.4 Context of the Research

In order to contextualize the findings of the research to follow, characteristics of head and neck cancer rehabilitation and features of providing services to this unique clinical population are described next.

1.4.1 Head and neck cancer rehabilitation.

Head and neck cancer (HNC) represents about 3% of all cancer-based anatomical sites in North America (American Cancer Society, 2013; Canadian Cancer Society's Advisory Committee on Cancer Statistics, 2013). The primary sites of head and neck cancer include the oral cavity, oropharynx, larynx, hypopharynx, and nasopharynx. Most head and neck cancers are attributed to the risk factors of tobacco and alcohol consumption (American Cancer Society, 2013; Canadian Cancer Society's Advisory Committee on Cancer Statistics, 2013). Yet a growing body of evidence shows that exposure to the human papillomavirus (HPV) is a causal factor of oropharyngeal cancers which are currently on the rise in North America (Chaturvedi et al., 2011). People in their 50s and 60s are most likely to be diagnosed with head and neck cancer, but it does occur in younger patients (American Cancer Society, 2013; Canadian Cancer Society's Advisory Committee on Cancer Statistics, 2013). These types of cancers are generally more common in men than in women (American Cancer Society, 2013; Canadian Cancer Society's Advisory Committee on Cancer Statistics, 2013).

Depending on the site and stage of the cancer, treatment may consist of surgery, radiotherapy, chemotherapy or a combination of modalities. For advanced

cancers, there has been a shift from surgery towards organ preservation protocols¹ (especially with the use of concomitant chemotherapy and radiotherapy) (Genden et al., 2007). Despite important advances in treatment, head and neck cancer prognosis still largely depends on the stage of presentation, but other factors related to lifestyle (e.g., smoking and drinking habits), general health, access to care, and tumor characteristic can also affect outcome (Baxi et al., 2014; Johnson-Obaseki, McDonald, Corsten, & Rourke, 2012; Worsham, 2011). The capacity to predict outcomes remains challenging for the head and neck cancer population, mainly because this category of malignancy comprises a wide spectrum of anatomic sites and subsites with a potential for different tumor biology for each (Pulte & Brenner, 2010; Worsham, 2011). In that sense, current advances in the identification of biomarkers that predict the likelihood of recurrence and/or development of metastasis is encouraging not only for the accuracy and reliability of prognosis, but also for improving the individualization of treatment (Worsham, 2011).

During and after the aggressive treatment of HNC, patients suffer not only from the prospect of tumor progression and/or recurrence (Llewellyn, Weinman, McGurk, & Humphris, 2008), but also may experience substantial and persistent functional problems that may significantly affect one's daily activities and health-related quality of life (HRQoL) (Doyle, 1994; Doyle & Keith, 2005; Morton & Izzard, 2003; Murphy, Ridner, Wells, & Dietrich, 2007; Sayed et al., 2009; Tschiesner, et al., 2009; and others). In general, patients with cancer of the larynx report a better HRQoL than those with cancer of the oral cavity. However, the poorest scores are reported by patients with cancer of the oropharynx and hypopharynx (Bjordal et al., 2001; de Graeff et al., 1999; El-Deiry et al., 2005; Funk, Karnell, & Christensen, 2012). This is because treatment side-effects for some head and neck sites may result in severely impaired swallowing function which may require supplemental tube feedings, a process that is known to

¹ Surgery refers to total laryngectomy or removal of the entire 'voice box' while organ preservation include both nonsurgical and surgical procedures preserving the larynx in the setting of laryngeal carcinoma (Tufano & Stafford, 2008).

negatively affect HRQoL related to eating and overall HRQoL (Terrell et al., 2004). Such HRQoL information is important to monitor by the multidisciplinary team in order to facilitate successful rehabilitation (Doyle & Keith, 2005).

The aim of rehabilitation in HNC is to prevent and/or alleviate the loss of function and increase patients' quality of life (Myers, 2005; van der Molen, van Rossum, Burkhead, Smeele, & Hilgers, 2009). Some of the major problem areas that are commonly encountered relate to deficits in eating, swallowing, voice and speech, changes in the airway, and physical disfigurement (Doyle, 1994; Doyle & Keith, 2005). It is well-recognized that a multidisciplinary team approach is essential for optimum management and for comprehensive rehabilitation of those individuals (Doyle & Keith, 2005; Sanderson & Ironside, 2002). SLPs are typically involved on the head and neck oncology team because voice, speech, and swallowing subsystems are often negatively affected secondary to treatment (Rieger, Zalmanowitz, & Wolfaardt, 2006). Their work involves pre- and postoperative education and counselling, voice and speech rehabilitation, and, swallowing management (Doyle & Keith, 2005). The following excerpts from SLPs working in head and neck cancer rehabilitation, who participated in this study, illustrate best some of the features of providing clinical services to this population:

1. "I definitely think that in this field, especially in head and neck, **you wear many hats**: nurse, physician, social worker, psychiatrist/psychologist, sex therapist, respiratory therapist." (Ann)

What the research says...

Research studies into quality of life and psychological distress increasingly illuminate how individuals with head and neck cancer have concerns and issues disrupting one's life beyond solely their communication and swallowing needs (Murphy, Ridner, Wells, & Dietrich, 2007, van der Molen et al., 2009, Singer et al., 2012). The speech language pathologist is frequently the health care team member with the most regular and long-term contact with the patient, and may assist in early identification of the changing and unique needs of the individual

(Doyle, 1994; Myers, 2005).

2. “That’s the other thing with this profession; a lot of our patients have a history of alcohol abuse and/or drug abuse. So **they have a lot of other issues going on.**” (Julia)

What the research says...

In addition to presenting with high rates of substance abuse/dependence (Duffy 2007; Haman, 2008), individuals with head and neck cancer are known to suffer more frequently from mental health conditions and psychological distress than patients with other tumors (Bornbaum et al., 2012; Buchmann, Conlee, Hunt, Agarwal, & White, 2013; Chen et al., 2009; Singer et al., 2012). Head and neck cancers are also associated with the highest suicide rate and incidence of emergent depression (Lydiatt, Moran, & Burke, 2009; Misono, Weiss, Fann, Redman, & Yueh, 2008).

3. “And I just think a lot of the surgeries that our patients go through can be very morbid; **very appearance altering**; which has different effects on psyche, self-evaluation and self-worth for the patients. I mean it just balloons when you start to think about all of the issues, complications and situations that head and neck patients have to deal with.” (Joshua)

What the research says...

Individuals with HNC might be rendered vulnerable to psychosocial problems because social interactions and emotional expression depend to a great extent upon the appearance and functional integrity of the head and neck region (Callahan, 2005; Murphy, Ridner, Wells, & Dietrich, 2007). In addition to treatment-induced facial disfigurement, the life-threatening nature of the illness, the morbidity associated with illness, and the potential changes in role functioning, head and neck cancer and its treatment may place significant

adaptive demands on individuals and their families (Doyle, 1994; Katz, Irish, Devins, Rodin, & Gullane, 2003). SLPs' therapeutic aims are at the most fundamental level, that is, not only in relation to communication itself, but also to adjustment to a life-threatening illness, issues of identity and in the development of coping strategies (Blood, Luther, & Stemple, 1992; Lebel et al., 2013).

4. "In patients with total laryngectomy and voice prosthesis, unless the patient successfully changes their own prosthesis all the time and never has any problems, **you never discharge anybody**. So you work with patients for years and you get to know them and they get to know you. They know your family and they want to know how your kids are. So **it's more of a personal relationship**. Even the doctors walk in the room and see these patients for a couple minutes where I have an hour with them." (Anna)

What the research says...

As part of the multidisciplinary team, the SLPs' therapeutic relationship begins at the time of diagnosis and continues long after the medical treatment is completed (Messing et al., 2012). Doyle (1994) identified three core functions of the SLP with this population, namely, the provision, interpretation, and facilitation of information; achieving these functions is believed to allow the patient to become informed, make informed decisions, and become more engaged in the treatment and rehabilitation process. The nature of the relationship built in such intensive and long-term therapy often yields to the sharing of personal information, emotions and feelings (Coltart, 1993).

5. "It is an interesting field because **there's not a lot of books** out there on head and neck cancer. **Clinical research is also very lacking**. It's getting better, but it's certainly lacking." (Anna)

What the research says...

In addition to few guidelines for practice, initial training and continuing education opportunities in the area of head and neck cancer are not consistently available (Beaudin, Godes, Gowan, & Minuk, 2003). In Canada and the United-States, few academic or clinical programs devote a full course to issues that are specific to HNC (Beaudin et al., 2003 ; Yuen, Fallis, & Martin-Harris, 2010). SLPs working in this area are known to frequently learn on the job (Allen et al., 1998; Beaudin et al., 2003; Melvin, Frank, & Robinson, 2001).

The preceding excerpts illustrate that working with the head and neck population comprises a number of features that make it a complex area of Speech-Language Pathology practice. Indeed, SLPs working in HNC frequently encounter uncertain and challenging practice situations due to the broad, unique, and changing needs of the patients who face a potentially life-threatening disease, the long-term therapeutic relationships required in such settings, and the diverse outcomes related to highly diversified treatment modalities (Doyle & Keith, 2005). Such complex practices are recognized as locations where practitioners are required to engage in significant levels of reflective practice in order to monitor their professional actions (Schön, 1983, 1987). A complex practice such as HNC, where the level of preparedness through academic programs is minimal, calls for a high level of capacity for reflective practice. Thus, the characteristics of practice in HNC rehabilitation, as well as the nature of professional education in this domain, create an ideal context in which to study reflective practice.

1.5 Research Questions

In light of the considerations outlined above, the research questions posed within this dissertation are as follows:

- 1) **Integrated manuscript one (case study):** In what ways does practitioner reflection-in-action and reflection-on-action in two clinical cases, contribute to understanding about the development of professional expertise relevant to Speech-Language Pathology practice in head and neck cancer rehabilitation?
- 2) **Integrated manuscript two (scoping review):** What is the current state of the published literature on reflective practice in the field of Speech-Language Pathology?
- 3) **Integrated manuscript three (theoretical paper):** What is 'reflective practice'?
- 4) **Integrated manuscript four (conceptual paper):** What does reflective practice potentially offer to the field of Speech-Language Pathology, and more specifically, what can it offer to the professional practice of SLPs?
- 5) **Integrated manuscript five (empirical paper):** How do experienced SLPs use processes of reflection to develop knowledge relevant for practice in the context of head and neck cancer rehabilitation?

1.6 Researcher's Statement

The qualitative research process recognizes that the researcher acts as the 'human instrument' of the research (Charmaz, 2006; Finlay & Ballinger, 2006; Maxwell, 2005). In other words, the researcher's 'experiential data' - prior knowledge, research background and previous experiences - provide valuable perspectives and insights that shape how s/he apprehends the phenomenon under study and ultimately views and works with the data (Strauss, 1987; Mruck & Mey, 2007). It is recommended that qualitative researchers acknowledge the existence of their personal perspectives and belief systems as a potential influence on the research conduct and interpretation of the qualitative findings (Maxwell, 2005; Mruck & Mey, 2007).

Hence, the following section aims to make explicit my prior knowledge, previous experiences, and assumptions relative to this research, while recognizing that the

representation of such dimensions is always incomplete. Firstly, my professional background and the relevant clinical experiences that shaped my initial interest in reflective practice are detailed. Next, my assumptions about reflective practice, and the reflective practices of those I chose to study, are presented. Finally, I consider how those who review my findings may interpret them. Accordingly, for this particular section I will write in the first person.

1.6.1 Background and clinical experience.

I am a certified Speech-Language Pathologist (SLP) who graduated from the University of Montreal in 2002. I realized soon after graduating that the Speech-Language Pathology practice involves a considerable amount of knowledge that is not learned within the professional program. As a result, I have always had a strong interest in continuing professional education and professional development. This has led me to become interested in the broad area of health professional education, and particularly the area of reflective practice. I became interested in reflective practice through my clinical work with adult patients with voice disorders and head and neck cancer in a hospital setting. Typically, SLPs receive little training about head and neck cancer during their education, and for many areas of this practice there are no straightforward protocols to follow. Therefore, in my experience, I have seen that clinicians frequently rely on reflective processes to monitor the outcomes of their professional actions, and to determine which action should follow. From these observations and my understanding of the practice, I became interested in the approach of 'the reflective practitioner' (Schön, 1983, 1987).

1.6.2 My prior knowledge and assumptions about reflective practice.

I first heard about reflective practice in 2008 while consulting the health professional education program website at Western University in Ontario. I was in the process of selecting a doctoral program. At that time, evidence-based practice was making its formal entry into my profession in Québec. My interest in reflective practice was piqued because I appreciated how professionals can grow

within their own practice, and acquired new learning and knowledge through experiential situations. Reflective practice struck me as a crucial vector to move beyond the linear model of knowledge transfer encountered in most of my formal training experiences. This also matched my own desire, and that of like-minded colleagues, to seek to improve clinical practice by sharing and scrutinizing our 'know-how'. I pursued my interest in reflective practice with the ultimate goal of better serving individuals with communication disorders.

In my early readings about reflective practice in relation to coaching, leadership and management, similarities with the *da Vincian principles* were mentioned (Gelb, 1999). I was intrigued with these principles which were detailed as: *Curiosità* (insatiable curiosity), *Dimostrazione* (willingness to test one's knowledge), *Sensazione* (continuous refinement and meaningful engagement through the senses), *Sfumato* (embracing ambiguity and uncertainty), *Arte/Scienza* (balancing science (logic and rationality) with art (creativity and intuition)), *Corporalità* (search for grace and elegance), and *Connessione* (systems thinking). These principles resonated with my view of the essence of what being a 'master clinician' entails. These were also qualities that I highly regarded in my mentors. Early on, the value of reflection for professional practitioners became a central tenet of my doctoral research. I then set out to explore how SLP practitioners engage in reflective practice. One of my starting assumptions relative to my study participants was that each of them reflected on their actions in clinical practice to a greater or lesser extent; yet they also might have little or no awareness of the theory of reflective practice.

1.6.3 My expectations.

Initially, I had concerns about how my research would be perceived within the Speech-Language Pathology profession given the movement towards evidence-based practice in health care. Yet, as I worked with the theory, I began to see reflective practice as a *complement* to evidence-based practice². As the study

² There are an abundance of definitions of evidence-based practice. A well-known definition is

progressed, I developed a sense that reflection was not “an end in itself” but rather “a means to an end”. For instance, it is an excellent approach to foster expert practice, ethical practice, and/or collaborative practice. This conclusion is elaborated further in chapter five.

To date I have received strong support when I have presented my work at national and international Speech-Language Pathology conferences. This might in part be due to the increased attention reflective practice has received in recent years. I have personally observed growing attention to this theory in the various university milieus in which I have been involved. However, promotion of this work also faces challenges. The relatively new appreciation of the rigor, utility and potential of qualitative research in the field of Speech-Language Pathology, poses a challenge to the uptake of qualitatively oriented research in the field of Speech-Language Pathology (Damico & Simmons-Mackie, 2003). Another challenge may be due to the disciplinary attention given to content-oriented approaches to knowledge as revealed in evidence-based practices, and the relative lack of focus on process-oriented or practice-based types of knowledge that are derived through reflection. Nevertheless, my work regarding the nature of reflective practice, and practitioners’ processes of reflection is important as it systematically documents how practitioners might engage in reflective practices within the realities of their clinical practices, and considers why such processes are relevant to effective professional practice in Speech-Language Pathology. This work has the potential to ensure that approaches to reflective practice that are introduced into the discipline of Speech-Language Pathology are informed by well-founded theoretical tenets, as well as the real-life practices of practitioners.

My hope is that this work will inform the inclusion of reflective practice as an approach to teaching and learning not only in academic curricula, but also in the workplace. I plan to continue to build my knowledge base in this evolving area

that put forth by David Sackett and colleagues: “Evidence-based medicine is the integration of best research evidence with clinical expertise and patient values.” (Sackett, Straus, Richardson, Rosenberg, & Haynes et al., 2000, p.1)

while remaining committed to sharing it with colleagues and the wider Speech-Language Pathology and health professional communities.

The process of acknowledging the factors that have shaped my views and beliefs is part of the ongoing reflexive process I have used throughout this study. I will further discuss my approach to reflexivity in the concluding chapter of this thesis.

1.7 Overview of Chapters

This thesis has been prepared using an integrated-article style and offers analytic, conceptual and empirical contributions. **Chapter 2** presents integrated manuscript one: a case study undertaken to begin to examine the applicability of concepts and idea related to reflective practice in the clinical context of Speech-Language Pathology and head and neck cancer rehabilitation. This article has been published in the *Canadian Journal of Speech-Language Pathology and Audiology*. **Chapter 3** presents integrated manuscript two: a scoping review of the literature on reflective practice in the field of Speech-Language Pathology. The paper maps the current state of knowledge in the field, and identifies gaps related to knowledge about the reflective processes used by SLP practitioners. This manuscript has been accepted for publication in the *International Journal of Speech-Language Pathology*. **Chapter 4** presents integrated manuscript three: a conceptual paper that outlines a conception of reflective practice, and proposes it as an approach to knowledge generation in Speech-Language Pathology. **Chapter 5** presents integrated manuscript four: a conceptual paper examining the potential relevance of reflective practice to the field of speech-language pathology. **Chapter 6** focuses on the methodological grounding of the empirical part of the dissertation. Grounded theory, following an interpretivist/constructivist perspective, was the methodology chosen to study SLPs' reflective processes in the context of HNC rehabilitation. This chapter provides methodological details and extended discussion that could not be covered in the study design and methods section of manuscript five in chapter 7. **Chapter 7** presents integrated manuscript five: the empirical contribution of this thesis. This article entitled

Reflective processes of practitioners in head and neck cancer rehabilitation: A grounded theory study presents the findings that emerged from the empirical research. **Chapter 8**, the final chapter in this thesis, examines the contributions to knowledge of the work, the quality criteria by which to judge its merit, and discusses the implications of the work for theory, practice, education, research and policy.

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Chapter 2

2. Integrated Manuscript One: Case Study

Despite the important role that speech-language pathologists (SLPs) play in laryngeal cancer rehabilitation, there appears to be little training or continuing education for practitioners in this specialized area. This is a particularly demanding area of practice, and practitioners frequently encounter challenging situations with no clear pathway for treatment. Practitioners working in this area frequently appear to use processes of reflection to monitor the outcomes of their professional actions, to determine actions and to become more skillful in practice.

This paper examines how reflective processes can inform clinical decision-making and foster the development of professional practice knowledge for speech rehabilitation of clients who underwent tracheoesophageal (TE) voice restoration following total laryngectomy. A retrospective case study using a reflective practice framework was undertaken in which clinical problems encountered by a speech-language pathologist (the author of this thesis) during the postlaryngectomy voice rehabilitation of two patients were analyzed and recorded. The ultimate objective of this paper was to consider the following question: **“In what ways does practitioner reflection-in-action and reflection-on-action contribute to the understanding about the development of professional expertise relevant to Speech-Language Pathology (SLP) practice in head and neck cancer rehabilitation?”** The findings suggest that a practitioner’s processes of reflection on both general and specific issues of practice are important for advancing professional practice knowledge and for the development of expertise in head and neck cancer rehabilitation.

2.1 Linking the Art of Reflective Practice in Head and Neck Cancer Rehabilitation with the Scientist's Art of Research: A Case Study on Reflective Practice

Postlaryngectomy rehabilitation encompasses more than the learning of a new mode of verbal communication. Monitoring all areas of postlaryngectomy functioning (i.e., physical, physiological, psychological, social, and psychosocial) is essential to offer the best level of care and, therefore, the best short and long-term outcomes (Doyle, 1994, 2005). Parameters that influence the success of laryngectomy rehabilitation, such as psychosocial and sociodemographic factors, are mentioned as frequently as other influential key issues such as medical factors (Singer, Merbach, Dietz, & Schwartz, 2007). Despite this growing attention to the complexity of successful client outcomes, little research has examined the expertise of the practitioner and the implications for successful laryngectomy rehabilitation. Despite the obvious impact that clinician experience has on patient care and the resultant outcomes observed, such concerns are seldom addressed in the literature. For this reason, a critical question emerges relative to clinical practice. Specifically, the question raised pertains to whether therapeutic outcomes and comprehensive services are influenced by the expertise and experience of the practitioner.

Although Kasperbauer and Thomas (2004) acknowledge that successful vocal rehabilitation relies on the integrated expertise of the surgeon and SLP, few other studies report on this topic. Indeed, little research addresses the nature and development of SLP expertise whereas the development of professional expertise has been studied and written about in medicine (Moulton, Regehr, Mylopoulos, & MacRae, 2007), nursing (Cutcliffe, 1997), physiotherapy (Resnik & Jensen, 2003) and occupational therapy (Unsworth, 2001). The influence of SLP expertise on assessment or therapy outcomes is essentially unknown. In his article *Toward a Theory of Clinical Expertise in Speech-Language Pathology*, Kahmi (1995) concluded that the profession's ideas concerning clinical expertise "need to be supported by future studies that address the relationship between the

knowledge and skills that define clinical expertise and measures of treatment outcomes” (p. 356). More recently, while evaluating factors influencing therapeutic outcomes, Bernstein Ratner (2006) also was concerned with the “therapist quality,” highlighting the relationship between practitioner expertise and clinical outcomes. While research and continuing education opportunities have increased specialization in particular areas such as that related to head and neck cancer rehabilitation (McAllister, 2005), repeated findings continue to show that SLPs are often uncomfortable working with this specialized population (Yaruss & Quesal, 2002) and that there is a need for accessible education and training for these special populations. However, it is not unusual for SLPs to receive little training about head and neck cancer during their formal education (Melvin, Frank, & Robinson, 2001; Beaudin, Godes, Gowan, & Minuk, 2003).

Drawing on the seminal writing of Donald Schön (1983, 1987), the importance of practitioner reflection for the development of professional practice knowledge and the development of professional expertise has been widely documented in other health care fields (Benner, 2001; Bereiter & Scardamalia, 1993; Fish, 1998; Higgs & Titchen, 2001; Kinsella, 2000, 2001). Reflective practice offers a means by which clinicians monitor the outcomes of professional actions and determine actions in practice (Kinsella, 2001). Reflective practice is recognized as an approach that facilitates the development of expertise in therapeutic practice (Benner, 2001; Schön, 1987), yet little research has examined processes of reflection by practitioners in the context of head and neck cancer rehabilitation.

Treatment modalities for laryngeal cancer have expanded with the advancement of organ (voice) preservation therapy (radiotherapy and/or chemotherapy) and attempts to avoid total laryngectomy. As a consequence, the head and neck cancer team is faced with increasingly complex uncertain and unique circumstances and outcomes for patients. Thus, the practitioner in this context must negotiate what Schön called the “indeterminate zones” of professional practice, meaning those situations that fall outside of the realm of clear-cut cases and for which technical and scientific approaches tend to be unsuccessful

(Kinsella & Whiteford, 2008). Different approaches, therefore, are required to negotiate these challenges successfully (Kinsella, 2007). Further, because of the varied and often unpredictable events associated with treatment modalities, sudden changes, which frequently require careful and immediate consideration, may occur as part of the clinical process. Such practice context and clinical processes are recognized to increase the likelihood of the use of reflection (Lowe, Rappolt, Jaglal, & MacDonald, 2007). Schön (1983, 1987) argued that practitioners frequently rely on reflective processes to monitor the outcomes of professional actions and to determine actions in professional practice.

Schön (1987) describes reflective practice as “a dialogue of thinking and doing through which I become more skillful” (p. 31). His point is that practitioners are involved in a dialectic conversation (reflective processes) with and within the situation, its actors, and the underlying beliefs from which practitioners use evidence for negotiating the complexities of practice and learning from this experience. Schön’s (1983, 1987) work illuminates the ways in which practitioners may be researchers of their own professional practices through *frame reflection*, *reflection-in-action*, and *reflection-on-action*.

Frame reflection – Frame reflection focuses on the ways in which practitioners engage in reflective conversations (in the midst of the treatment and/or after) with the situations of practice (clinical issues) and “set the problems” toward which they focus their attention. Schön (1983) suggests that problem setting is a process by which practitioners critically select the problematic characteristic of a situation (i.e., name the problem) and frame the context in which it will be attended to (e.g., practitioner’s role or values at stake in the situation).

Reflection-in-action – Reflection-in-action is reflection that occurs in the midst of action when the action can still make a difference to the situation (Schön, 1983). Schön writes that “when someone reflects-in-action, he[she] becomes a researcher in the practice context” (p. 68). Reflection is often stimulated when practitioners apply their theoretical/scientific knowledge and are then met with an

unexpected outcome (Kinsella, 2000) or, in Schön's words, when practitioners experience surprise in the midst of practice.

Reflection-on-action – Reflection-on-action is reflection that occurs following an event; it is a process of thinking back on action taken (Schön, 1983). Reflection on action allows the clinician to further explore what arose from the situations of practice and to acknowledge the professional learning that occurred through the expected or unexpected outcomes encountered in that situation (Kinsella, 2007). In addition, this can be a time to reflect upon other dimensions of practice experience, such as one's assumptions, beliefs, ideas, feelings, action, and behaviours.

2.1.1 Purpose

Current literature suggests that the development of professional expertise requires practitioners to engage in processes of reflection, as well as in evidence-informed practice. While evidence-informed practice has become part of the professional lexicon, little research has been done to investigate how reflective practice occurs in the clinical process and the potential contribution to SLP professional practice knowledge. Thus, the purpose of this case study (Stake, 2003; Yin, 2003) was to illuminate the ways in which practitioner reflection is implicated in the development of SLP expertise in the context of head and neck cancer rehabilitation. Specifically, we examined how reflective processes inform clinical decision-making and foster the development of professional practice knowledge for speech rehabilitation in two patients who underwent total laryngectomy and received tracheoesophageal (TE) voice restoration and had encountered problems including stoma stenosis and TE puncture tract dilatation. The ultimate objective was to consider the question "In what ways does practitioner reflection-in-action and reflection-on-action contribute to the understanding about the development of professional expertise relevant to SLP practice in head and neck cancer rehabilitation?"

2.1.2 Method

2.1.2.1 Participants.

Both patients were seen by an SLP with 5 years of clinical experience in outpatient services for voice disorders and laryngeal cancers in a university hospital setting. This case study focuses on one practitioner's retrospective analysis of reflective processes about two clinical cases. The first author is the practitioner described in the study. The first patient was a 55-year-old Caucasian male diagnosed with a recurrence of an epidermoid carcinoma (stage: T2N0M0) of the left vocal fold. He underwent total laryngectomy with primary puncture and myotomy of the cricopharyngeus muscle. Radiation therapy was given 53 days preoperatively. A tracheoesophageal puncture (TEP) voice prosthesis was fitted at 29 days postsurgery. This patient demonstrated functional use of TEP at 71 days postsurgery, and no swallowing problems were reported. Follow-up problems concerned stoma stenosis and inadvertent prosthesis dislodgment with fistula closure.

The second patient was a 64-year-old Caucasian female diagnosed with epidermoid carcinoma (stage: T2N0M0) of the right pyriform sinus. She underwent total laryngectomy with primary TEP and received radiation therapy prior to laryngectomy. The patient experienced swallowing problems and reduced oral opening prior to laryngectomy. A TEP was fitted at 21 days post-surgery. At 434 days postsurgery, functional use of the TEP for speech was not yet attained. Follow-up mainly concerned issues related to pharyngoesophageal segment stenosis.

2.1.2.2 Data collection and analysis.

Data collection was conducted retrospectively and consisted of a review of the medical files of the two patients and an in-depth analysis of the SLP's professional records. Files and records were searched to identify clinical troubleshooting situations encountered in laryngectomy rehabilitation. Reflective

notes were kept by the first author about critical moments identified. Critical moments are clinical/therapeutic accounts of critical clinical issues that were documented by the SLP in the patients' charts. Critical moments frequently depicted times when the practitioner's application of theoretical/scientific knowledge was met with an unexpected outcome (Kinsella, 2000, 2001; Kinsella & Jenkins, 2007). Decisions regarding which critical moments to analyze within the present study were based on opportunities to: (a) understand the application of reflective practice and the implications for professional learning and (b) the possibility for transfer of knowledge beyond this particular case (i.e., the representativeness of the clinical problem encountered). An analytic framework of reflective practice drawing on the seminal theoretical work of Donald Schön (1983, 1987) was utilized to analyze the way in which the practitioner: (a) framed the clinical issue, (b) re-framed the problem through reflection-in-action, and (c) retrospectively reflected on action and identified new practice knowledge gained.

2.1.3 Results

2.1.3.1 Clinical case A: Tracheostoma stenosis.

(a) Frame Reflection

Framing the clinical issue: A small stoma diameter impedes the individual's ability to place and remove the TEP voice prosthesis. A recommended strategy to address this issue is to dilate the tracheostoma with a laryngectomy tube (Monahan, 2005). Since air needs to move from the trachea through the voice prosthesis and then into the esophageal reservoir for TEP speech, it is preferable to use a fenestrated laryngectomy tube or to modify the length or shape of the tube.

Critical moment: A fenestration was performed to prevent catching the voice prosthesis during removal of the laryngectomy tube for cleaning (voice prosthesis positioned behind the tube). Upon evaluation, the clinician noticed prosthesis dislodgement during laryngectomy tube removal.

(b) Reflection-in-action

Reframing the problem: A slight variation in the tube positioning displaced the voice prosthesis in front of the laryngectomy tube.

Change-in-action: The decision was made to widen the fenestration.

Outcome: The patient found it easier to remove the laryngectomy tube and began wearing it on a regular basis.

(c) Reflection-on-action

Following the initial fitting of the laryngectomy tube, the patient experienced breathing problems because the laryngectomy tube narrowed the airway. The tube was removed.

Practice knowledge gained: The clinician learned that it is crucial to counsel the patient about a possible subjective feeling of respiratory distress related to a tracheostoma tube prior to the intervention.

2.1.3.2 Clinical case B: Dehiscence of the tracheoesophageal puncture.

(a) Frame Reflection

Framing the clinical issue: Even when caution is taken while inserting the voice prosthesis, tissue trauma may result in minor bleeding at the puncture site (Doyle & Keith, 2005).

Critical moment: While performing a routine change of the voice prosthesis, the clinician noticed a larger amount of bleeding and untightening of the TEP tract's walls.

(b) Reflection-in-action

Reframing the problem: A significant amount of bleeding is not a common observation during the insertion of a voice prosthesis. In this case, the patient had undergone radiation therapy and the tissues of the tracheoesophageal wall had been affected. Because irradiated tissue differs from normal tissue, it may be more prone to dehiscence and granulomatous changes from repeated trauma during voice prosthesis change (Gress & Singer, 2005; Malik, Bruce, & Cherry, 2007). Consequently, this may have explained the increased amount of bleeding observed with TEP insertion. In this case, late post-radiation changes in TE wall tissue problems prevented the placement of the voice prosthesis.

Change-in-action: A rubber catheter was inserted to keep the tracheoesophageal puncture patent while allowing tissue healing to occur.

Outcome: One month later, sufficient healing had occurred and contraction of the TEP wall tissues had taken place. The TE voice prosthesis was inserted without bleeding and the patient was able to produce voice.

(c) Reflection-on-action

Although medical management of the problem was not necessary in this case, there was an interprofessional discussion about other potential causes of significant bleeding such as esophageal perforation. In such cases, when the TE voice prosthesis tip is projected into the esophagus during the insertion, it could tear the irradiated esophageal mucosa which would explain an increased amount of bleeding. Esophageal perforation can lead to serious secondary infection and requires aggressive management including drainage and antibiotic therapy.

Practice knowledge gained: Knowledge was gained about a rare complication associated with TEP voice restoration. The clinician now pays special attention to the amount of bleeding as it might be indicative of deteriorated tissue in the TE puncture site.

2.1.4 Discussion

This case study provides information emerging from an immersion into clinical events. In doing so, it has drawn on one practitioner's experience to illustrate the use of reflective processes in clinical practice. Schön's work on reflective practice (1983, 1987) has provided a theoretical framework to support the analysis reported herein. Although general conclusions on clinical populations should not be drawn from individual case studies, practitioners and researchers may discern implications for their professional practice and for further research from particular case studies, as some of the findings may parallel their personal experience or research interest(s). In addition, over time a series of case studies may lend themselves to meta-analysis. Systematic and thorough case studies have the potential to make a significant contribution to knowledge and clinical practice.

The purpose of this research was not to compare patient cases, but rather to provide an illustration of the reflective processes involved in professional practice and the implications for professional practice knowledge. Both cases highlight that reflection-in-action gave rise to "on-the-spot" experimentation and informed decision-making, while reflection-on-action provided opportunities for development of practitioner theories of practice and growth of professional practice knowledge (Kinsella, 2000; 2001). "On the spot" experimentation occurred in case A when the practitioner tried out a new action (widening the fenestration), which led to the intended change. In case B, reflection-in-action contributed to the decision to delay insertion of the voice prosthesis. Theories of practice are strategies, insights, and underlying considerations for actions taken in everyday clinical practice. For example, in case A, a change in the clinicians' theory of practice consisted of restructuring counseling based on the practice knowledge gained from this clinical experience. The clinician was able to problem-solve through reflection, observation, and critical evaluation, but also to consider this outcome in the context of contemporary theory and practice.

Medical and technological advancement, as well as public demand for professionals' accountability, has increased the need for continuing education and specialization for health care practitioners, including SLPs working with head and neck cancer patients. Reflective practice allows practitioners to thoroughly examine practice questions in order to gain a deeper understanding of the issues they face (Kinsella & Jenkins, 2007). In a similar vein, Benner (2001) asserts that reflective practice allows practitioners to uncover practice knowledge "useful to further develop the scope of practice of professionals who wish to and are capable of achieving excellence" (p. 35). Developing the capacities for reflection in and on practice is to be seen as a significant dimension of professional practice and as important for the development of expertise. The ability to carefully and comprehensively reflect on the nature of the clinical interaction should also be seen as potentially contributing to improved quality of patient care. Indeed, in the context of on-line problem solving, processes of reflection increase the potential that the most appropriate decisions will be made to benefit the patient. While every clinician will make occasional errors, a savvy clinician will seize upon the opportunity of uncommon problems to expand his or her expertise and clinical judgment. In addition, documenting information from challenging cases can, over time, make an important contribution to the SLP's knowledge and best practices. Comprehensive case documentation can be achieved through an in-depth description of the clinical case complemented with an explicit account of the reflective processes involved in clinical decision-making. Doing so may then lead to further reflection and facilitate the clinician's ability to challenge and transcend the frame of day-to-day clinical practice.

There are many ways to develop professional expertise, yet there are no uniform guidelines detailing how clinical experiences can be integrated and shared. Recent conceptualizations have elaborated on the multifaceted and transdisciplinary nature of expertise (King, Currie, Bartlett, Strachan, Tucker, & Willoughby, 2007; King, Bartlett, Currie, Gilpin, Baxter, Willoughby, et al., 2008). Expertise cannot easily be captured in the theoretical, abstract principles, or explicit guidelines (Benner, 2001). Professional expertise is a composite of the

practitioner's level of knowledge, personal qualities and characteristics, skills, abilities, outcomes, and professional and public reputation (King et al., 2007). From this point of view, experience should be seen as just one factor that contributes to the development of expertise rather than as an essential constituting characteristic of such expertise. The case studies described herein illustrate how clinical experience may be processed through practitioner reflection and how it may contribute to the development of expertise and consequently to the professional practice of the therapist.

Multiple sources of knowledge inform one's profession and education. Critical reflection allows the practitioner to gain a deeper understanding of experience so that a challenging clinical situation can be transformed into an opportunity for active learning and practice knowledge development (Kinsella, 2000). Together with scientific evidence and theory, professional practice knowledge generated from reflection in and on practice, by informing the body of knowledge that SLP's use, has the potential to change and improve best practices in speech-language pathology.

2.1.5 Conclusion

In recent years, evidence-informed practice has become part of the professional lexicon in SLP, but little research has investigated how reflective practice occurs and how it may contribute to professional practice knowledge in SLP. The research presented herein contributes to the understanding of the ways in which practitioner reflection is implicated in the development of SLP expertise in the context of head and neck cancer rehabilitation. Reflecting in and on practice is an important dimension of effective professional practice and the development of expertise and, importantly, improved client outcomes. Documenting the intricacies of SLP practice is essential to make professional practice knowledge available for further practice development, professional education, and research. Further research into the SLP's use of reflection in clinical practice is required to advance our understanding of the development of professional expertise.

Because of the many challenges and complications in this clinical population, head and neck cancer rehabilitation offers an ideal environment in which to study reflective practice and the way in which it informs the development of professional expertise in speech-language pathology.

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Chapter 3

3. Integrated Manuscript Two: Scoping Review

Little is currently known about the conceptual and the empirical perspectives of reflective practice in the field of Speech-Language Pathology. The purpose of this review was to consider the key concepts and approaches to reflection and reflective practice in the published Speech-Language Pathology literature and identify the potential gaps in the research literature. This scoping review was conducted using the Arksey and O'Malley framework (2005). The central question guiding this current review is: **What is the current state of the published literature on reflective practice in the field of Speech-Language Pathology?** A total of 42 relevant publications were selected across a range of computerized bibliographic databases. The resulting literature mapping revealed that the scholarship on reflection and reflective practice in the field of Speech-Language Pathology is relatively scarce. The resulting conceptual mapping pointed to the use of multiple and generic terms and a lack of conceptual clarity about reflection and reflective practice in Speech-Language Pathology. Two predominant approaches to reflection and reflective practice were identified: written reflection and reflective discussion. Both educational and clinical practice contexts were associated with reflection and reflective practice. Publications reviewed were mostly concerned with reflection and reflective practice by both novices and experts. There is a need for more research evidence to support university-based and work-based educational initiatives involving reflection and reflective practice in Speech-Language Pathology.

3.1 Reflective Practice in Speech-Language Pathology: A Scoping Review

3.1.1 Introduction

Reflective practice is a concept that is increasingly being employed by numerous health care disciplines as part of continuing education and professional development programs (Mann, Gordon, & McLeod, 2009). Reflective practice involves active, persistent, and careful consideration about what one does in practice with the goal of facilitating more awareness and skill in one's clinical performance (Dewey, 1910; Osterman & Kottkamp, 1993; Schön, 1987). Reflection and reflective practice are considered essential characteristics of professionally competent clinical practice (Epstein & Hundert, 2002; Mann et al., 2009). In the health sciences, interdisciplinary interest continues to grow and there is increasing acknowledgment of the role that reflection and reflective practice plays within the larger context of healthcare (Mann et al., 2009; Wald & Reis, 2010). This awareness has been demonstrated across several health care professions over the past two decades.

For example, authors from the professions of nursing (e.g., Jarvis, 1992; Johns, 1995), occupational therapy (e.g., Kinsella, 2001; Parham, 1987), physiotherapy (e.g., Clouder, 2000; Higgs & Titchen, 1995) and medicine (e.g., Epstein, 1999; Mamede & Schmidt, 2004) have clearly acknowledged the value of reflection and reflective practice in their professions. In fact, nursing has utilized reflection and reflective practice for some time to improve clinical practice and practice development, education and clinical supervision, leadership and management, and research and scholarship (Honour Society of Nursing, 2005). In occupational therapy, reflection and reflective practice have been recognized for their use to develop praxis, a balanced merger of reflection and action for ethical practice (e.g., Kinsella, 2001; Wilding & Whiteford, 2009), to integrate research evidence into the clinician's decision-making process (e.g., Vachon, Durand, & LeBlanc, 2010), and to foster client-centred practice (e.g., Duggan, 2005). Similarly, in

physiotherapy, reflection has been used to establish and sustain a client-centered approach to patient management, and has also found merit in efforts to more successfully implement clinical supervision (e.g., Clouder & Sellars, 2004), for coping with the complex demand of collaborative practice (e.g., Clouder, 2000), and to foster problem solving and clinical reasoning (e.g., Donaghy & Morss, 2000). Finally, in medicine, reflection and reflective practice have been used to develop doctors' clinical reasoning skills and practical expertise (e.g., Moulton, Regehr, Mylopoulos, & MacRae, 2007), foster compassionate care and promote doctors' well-being (e.g., Shapiro, 2008), and to improve diagnostic accuracy (e.g., Mamede, Schmidt, & Penaforte, 2008). While these professions have recognized and adopted reflective practice, little is known about the conceptual and empirical perspectives of reflection and reflective practice in Speech-Language Pathology. Given the relative paucity of information on reflection and reflective practice in the context of Speech-Language Pathology, and its inherent value to any clinical endeavors, efforts that seek to identify the state-of-the-art in Speech-Language Pathology may offer valuable insights. Consequently, to address this gap, a scoping review was undertaken to examine the current published literature on reflective practice in the field of Speech-Language Pathology.

3.1.2 Purpose and research question

This scoping review considers the key concepts and approaches to reflection and reflective practice in the published literature and the potential gaps in the research literature. The central question guiding this review is: What is the current state of the published literature on reflective practice in the field of Speech-Language Pathology?

3.1.3 Methods

3.1.3.1 Design.

The present scoping review was undertaken based on the framework outlined by Arksey and O'Malley (2005) with consideration given to additional recommendations offered by Levac, Colquhoun, and O'Brien (2010). Briefly, scoping reviews (or studies) are rapid but comprehensive and rigorous surveys of the literature in terms of: 1) main sources and types of evidence, and 2) key concepts underpinning a research area (Arksey & O'Malley, 2005; Levac et al., 2010; Mays, Popes & Popay, 2005). Such reviews have been increasingly used in a wide range of healthcare disciplines and proven to be particularly useful in establishing research priorities and core investigative issues to be addressed in complex or emergent research areas (Anderson, Allen, Peckham, & Goodwin, 2008; Davis, Drey, & Gould, 2009). By emphasizing the breadth of coverage of the available literature and illuminating the extent and context of a body of evidence, this approach to research and evidence synthesis also has the potential to influence policy and practice developments (Arksey & O'Malley 2005, Davis et al., 2009). Collectively, scoping reviews provide a potentially broad and contextually rich means of evaluation for understanding the present status and current limitations in a given area of evaluation, and for this reason provided an ideal means to explore reflection and reflective practice in Speech-Language Pathology.

Arksey and O'Malley (2005) proposed five stages in conducting a scoping review: 1) identification of the purpose and the research question, 2) identification of relevant studies, 3) study selection, 4) charting of the data, and 5) collating, summarizing, and reporting the results. These five stages were adopted for the current scoping review and are depicted sequentially in Figure 1. The purpose and research question outlined in the present work (above) fulfill the first stage of the scoping review; following are descriptions of the other four stages.

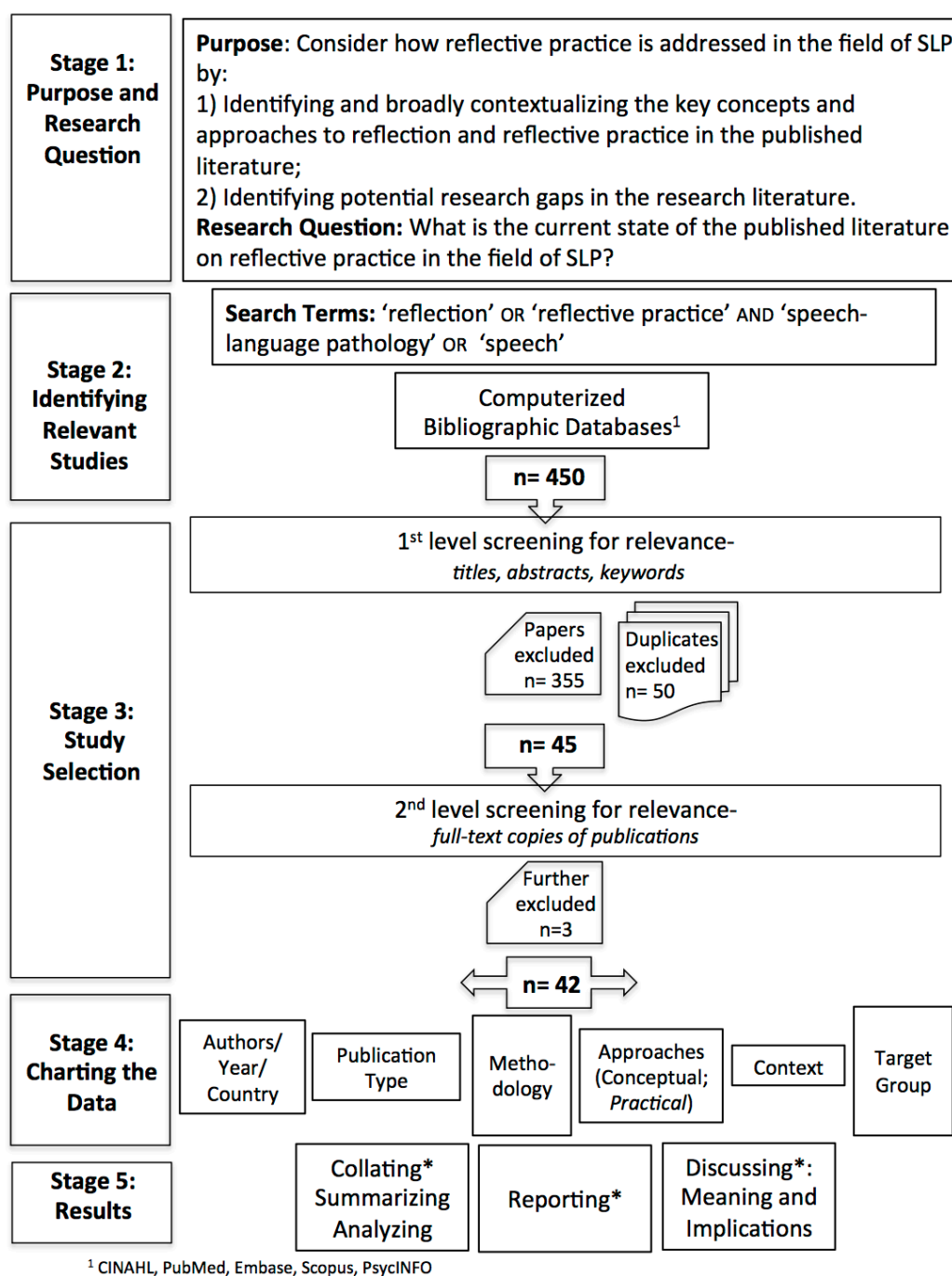


Figure 1: Flow chart of the scoping review process on reflective practice in Speech-Language Pathology. The five unique stages represented on the left of the figure and the 3 boxes that follow Stage 5 at the bottom of the figure (identified with an asterisk) are based on Arksey and O'Malley (2005, p.22 and p.27, respectively)

3.1.3.2 Identifying relevant studies: search strategy.

Relevant peer reviewed papers were identified using a systematic search strategy across a range of computerized bibliographic databases. Prior to beginning the review the search strategy was pilot-tested to establish its efficacy. Based on this pilot, a time frame of 15 years (1997-2012) was established for the review. The search terms used were: [reflection] OR [reflective practice] AND [speech-language pathology] OR [speech]. These terms were chosen in consultation with experts in the field and a health sciences librarian. The following computerized bibliographic databases were searched: Cumulative Index to Nursing and Allied Health Literature (CINAHL), PubMed, EMBASE, SCOPUS and PsycINFO. These databases were chosen because they index a broad range of health care disciplines, including speech-language pathology.

3.1.3.3 Study selection.

Criteria for the inclusion of articles were set broadly to include any publications that: (a) addressed the concepts of reflection or reflective practice, (b) provided examples of how reflective processes were used, or (c) considered the use of reflective strategies for educational purposes or in practice. In the initial search of computerized bibliographic databases, 450 titles and abstracts were retrieved. Once this core database was identified, the first level of screening involved reviewing the title of the article, its abstract and key words to find inclusion of the words *reflection* and/or *reflective practice*. If relevance of the study was unclear, the full text was reviewed. Of these 450 articles reviewed in the first level of screening, 355 papers were identified as being non-relevant and 50 were duplicates. The remaining 45 articles were included in second level of screening, a process that involved review of the full text; this task eliminated 3 additional articles yielding 42 peer reviewed articles for the review. Reference lists of relevant articles were reviewed in an attempt to identify further references. This

“snowball” method (Garrard, 2011, p.84) did not yield for retrieving any further references.

3.1.3.4 Charting the data.

All selected articles were reviewed using the following organizational categories: authors, year of publication, country of origin, publication type or source, methodology, approaches (conceptual and practical) to reflection and reflective practice, context, and target group. An abridged version of the charting table for the computerized bibliographic databases is shown in the appendix.

3.1.3.5 Collating, summarizing, and analyzing the data.

First, a systematic count of the year of publication, the geographical distribution of publications, type of publication or source, and methodology employed was performed. This literature mapping, a process that was primarily concerned with frequency of occurrence, was conducted for the 42 studies selected from the computerized bibliographic databases. This process contributed to an initial overview of the distribution and type of literature addressing reflection and reflective practice in the field of Speech-Language Pathology.

Next, a conceptual mapping of content was conducted by in depth analysis within and across columns of the data extraction chart for all studies included in the review. Thematic coding was undertaken as a first step in ordering these data (Namey, Guest, Thairu, & Johnson, 2008). Examining co-occurrences between terms and the frequencies of emergent themes assisted in identifying significant patterns (Krippendorff, 2013). Concept maps were then used to identify meaningful data clusters or to enhance data comparison and interpretation (Wheeldon & Ahlberg, 2012). Re-reading of the texts was essential for considering contextual elements and for identifying further themes. This process contributed to conceptual mapping of key concepts and approaches to reflection and reflective practice identified in the Speech-Language Pathology literature and afforded the opportunity to account for the varied contexts and populations targeted.

Specifically, the following questions guided the conceptual analysis relative to reflection and reflective practice in the field of Speech-Language Pathology:

- Approaches to Reflection and Reflective Practice:
 - Conceptual:
 - What terminology is used?
 - Which theories and models inform conceptions of reflection and reflective practice?
 - Practical:
 - Which activities and methods are described as being used to facilitate reflection?
- Context: Where does the literature suggest that reflection and reflective practice occurs?
- Target Group: Who is identified as engaging in reflection or reflective practice?

3.1.4 Results

3.1.4.1 Distribution of publications by year and country of origin.

Publications retrieved from the computerized databases represented a time period from 1997 to 2012. With exception of 2009, five articles or less were found for any given year; no publications were identified for three of the years under evaluation (i.e., 1998, 1999, and 2003). A general increase in the number of publications addressing reflection and reflective practice was seen starting in 2004. The greatest number of publications (n=9) occurred in 2009, with a decline observed over the following three years.

The majority of the papers were written by scholars from Australia (n= 12, 29%), USA (n= 11, 26%), and the UK (n= 10, 24%). Other countries of publication origin noted were the Netherlands (n=3, 7 %), Canada (n=2, 5%), South Africa (n=2, 5%) and China (n=1, 2%). Only one of the 42 reviewed articles (i.e., Brown,

Worrall, Davidson, & Howe, 2011) represented an international collaboration (Australia and New Zealand).

3.1.4.2 Distribution by type of publications.

Only 38% (n = 16) of the publications reviewed were research articles while 62% (n = 26) represented other forms of scholarly work. Other forms of scholarly work represented included: program development and evaluation (n = 10, 24%), issues and opinions (n = 8, 19%), clinical/field reports (n = 6, 14%), and instrument development and validation (n = 2, 5%). Neither 'theory or review articles', nor 'tutorials' were retrieved.

3.1.4.3 Distribution by type of methodology.

Of the 16 research articles retrieved, 13 involved qualitative research approaches (articles [1, 5, 14, 15, 19, 21, 23, 27, 31, 33, 36, 39, 40]) (see Appendix) while three adopted quantitative approaches (articles [11, 32, 42], (see Appendix). A wide range of qualitative methodologies were identified: phenomenographic/phenomenology research (n= 3, articles [21, 33, 40]), generic forms of qualitative research (n= 2, articles [19, 23]), grounded theory (n= 2, articles [31, 36]), linguistic discourse analysis (n= 2, articles [1, 5]), qualitative content analysis (n= 1, article [39]), case study (n= 1, article [27]), participatory action research (n= 1, article [14]), and biography (n= 1, article [15]). The quantitative methodological designs noted were: quasi-experimental (n= 2, articles [11, 32]) and content analysis (n= 1, article [42]).

3.1.4.4 Approaches to reflection and reflective practice.

3.1.4.4.1 Conceptual approaches to reflection and reflective practice.

What terminology is used?

Eight different terms were noted in papers addressing reflection and reflective practice. From the most to the least frequently used, the terms reflection (n=16), reflective practice (n=16), reflective learning (n=7), critical reflection (n=6),

reflection-in-action (n=4), reflection-on-action (n=4), self-reflection (n=3) and visual reflection (n=1) were used. Throughout the Speech-Language Pathology literature reviewed, the definition of these terms was often assumed. For example, following participatory action research principles involving academic and clinical staff, Pascoe and Singh (2008) used reflective logs to design a new course in which the development of self-reflection skills in the students, among other things, was deemed an important component. Although their program report is highly valuable for anyone considering integrating reflective practice principles into a curriculum, no definition of reflective practice or of what self-reflection skills entailed was provided.

In other papers, a variety of different concepts were conflated. For example, Fronek, Kendall, Ungerer, Malt, Eugarde, and Geraghty (2009) reported that the “theme of *reflective practice* dominated the feedback” (p.25- italics added) that was received from the participants in their Professional Boundaries for Health Professionals training program. Yet, these authors also concluded that “*critical reflection* was considered an essential skill in the management of professional boundary issues” (p.25- italics added); clearly *reflective practice* and *critical reflection* are conflated. Moreover, and perhaps most germane to the present review is that neither term was operationally defined.

Which theories and models inform conceptions of reflection and reflective practice?

From the 42 papers reviewed from the computerized databases, 20 (48%) included a depiction of how they were conceptualizing reflection and reflective practice. Of these 20 papers, 15 (75%) drew from the seminal work of Schön who coined the term reflective practice (articles [1-4, 6, 11, 21, 27, 29, 30, 33, 36, 39, 41, 42]) (see Appendix). Adult learning models (e.g., Knowles, 1984) and theories such as Kolb’s (1984) experiential learning theory and Boud, Keogh, and Walker’s (1985) reflective learning theory, often overlapped with reflection and reflective practice conceptualizations. In a unique application, one model for Speech-Language Pathology clinical practice and supervision integrated both

reflection and reflective practice (Geller & Foley, 2009a, 2009b). Their relational and reflective model for clinical practice in Speech-Language Pathology emphasizes the importance of working with families and addresses practitioners' emotional and subjective experience as potentially influencing the therapeutic alliance. Chabon and Lee-Wilkerson (2006) presented another pedagogical model in which reflection was defined as playing a central role in the instructional process for a diversity course offered to Speech-Language Pathology students. Finally, Schaub-de Jong and her colleagues (2011) proposed a theoretical framework for the facilitation of reflective learning in small groups. Their framework aligns with educational theories and reflective learning literature and involves the trichotomy of: a) supporting self-insight, b) creating a safe environment, and c) encouraging self-regulation.

3.1.4.4.2 Practical approaches to reflection and reflective practice.

Which activities and methods are described as being used to facilitate reflection?

An analysis of practical approaches to reflection and reflective practice revealed that *written reflection* and *reflective group discussion* were the most reported practical approaches. Written methods identified include reflective journals or logs (e.g., Chabon & Lee-Wilkerson, 2006; Freeman, 2001; Hill, Davidson, & Theodoros, 2012) and reflective essays or written summaries (e.g., Goldberg, Richburgh, & Wood, 2006; Munoz & Jeris, 2005; Schaub-de Jong, Cohen-Schotanus, Dekker, & Verkerk, 2009). Several papers mentioned either reflective procedures (e.g., Trembath, Wales, & Balandin, 2005), reflective questions and reflective outline (e.g., Chabon & Lee-Wilkerson, 2006) or a framework for reflection (e.g., Bruce, Parker, & Herbert, 2001). Ten publications reported on a guided approach to written reflection (articles [4, 6, 13, 15-18, 32, 33, 42]) (see Appendix), whereas eight reported unknown or non-guided approaches (articles [3, 14, 19-21, 23, 25, 27] (see Appendix)). Written reflection prevailed mostly in publications targeting Speech-Language Pathology students (14 publications)

(articles [3, 4, 6, 13-20, 23, 32, 33] (see Appendix)) vs. SLPs (4 publications) (articles [21, 25, 27, 35] (see Appendix)).

Reflective group discussions with peers (e.g., Baxter & Gray, 2001), mentors, critical companions (e.g., Higgs & McAllister, 2007) or a supervisor (e.g., Geller & Foley, 2009b) were also identified as a predominant approach to foster the reflective process. A trend towards the use of small groups was noted. Reflection through group discussions was prompted by a range of materials such as: case studies (e.g., Johnston & Banks, 2000), clinical therapy data (e.g., Epstein, 2008), feedback on clinical performance (e.g., Bruce et al., 2001), scenarios and work-based dilemmas (e.g., Fronek et al., 2009), shared stories from practice (e.g., O'Halloran, Hersh, Laplante-Lévesque, & Worrall, 2009) and therapy video clips (e.g., Horton, Byng, Bunning, & Pring, 2004).

3.1.4.5 Context: Where does the literature suggest that reflection and reflective practice occurs?

The literature reviewed from the computerized bibliographic databases highlighted that both educational and clinical practice contexts in Speech-Language Pathology were associated with reflection and reflective practice (23 articles for education (articles [2-4, 6, 7, 11, 13-21, 23-25, 30, 32, 33, 39, 41, 42] (see Appendix) vs. 19 articles for clinical practice (articles [1, 5, 8-10, 12, 17, 22, 26-29, 31, 34-38, 40] (see Appendix)). Educational contexts noted were: academic program and courses, clinical field placement, international course, and university clinic. The majority were university-based (as opposed to work-based). Clinical supervision was frequently linked to educational contexts associated with reflection, and interprofessional courses were the most frequently cited educational approach associated with reflection and reflective practice (e.g., Fronek et al., 2009; Muñoz & Jeris, 2005; Smith & Pilling, 2007).

Clinical practice contexts encompassed a wide variety of clinical populations including for example, early intervention services, dysphagia rehabilitation, and

head and neck cancer rehabilitation. Many of the articles addressed aphasia therapy. Regardless of the clinical population, when looking across clinical practice contexts, professional communication and Speech-Language Pathology service delivery were issues that were most frequently associated with reflective practice in articles pertaining to clinical practice. For example, Hersh's studies (2010a, 2010b) on the topic of discharge from therapy shed light on how both the acknowledgment of the SLPs' feelings encountered in the process of ending therapy, as well as awareness of the challenges faced in the decision making process, may "further reflective practice" (Hersh, 2010a, p.290). Thus, the active process of reflection would appear to have broad applications to Speech-Language Pathology service delivery from the onset of intervention through to its completion.

3.1.4.6 Target Group: Who is identified as engaging in reflection or reflective practice?

The target groups identified in the literature as engaging in reflection or reflective practice include: undergraduate and graduate Speech-Language Pathology students, other health professional students, newly graduated SLPs, SLP practitioners, clinical supervisors, faculty, other health professionals, and support personnel.

An adaptation of the 'novice to expert' model of skill acquisition (Benner, 2001; Dreyfus & Dreyfus, 1986) was used to organize these findings. The original model identifies five stages for the acquisition and development of expertise: novice, advanced beginner, competent, proficient and expert. For the purpose of the present analysis, these five stages were condensed into three: (a) *Novice-advanced beginner practitioners* - referring to students adhering to taught rules or following guidelines for actions in need of supervision; (b) *Competent practitioners* - referring to newly graduated practitioners with good working knowledge able to achieve most tasks using own judgment; and (c) *Proficient-expert practitioners* - referring to experienced practitioners with a deep and tacit understanding of practice; those who deal confidently and holistically with complex situations. Of the 42 articles reviewed from the computerized

bibliographic databases, 24 targeted novice-beginner practitioners (articles [2-7, 10, 11, 13-20, 23, 25, 30, 32, 33, 39, 41, 42] (see Appendix)), five competent practitioners (articles [22, 24, 28, 30, 40] (see Appendix)), and 21 proficient-expert practitioners (articles [1, 5-10, 12, 14, 21, 25, 26, 27, 29, 31, 34-38, 40] (see Appendix)). Eight articles addressed two of these stages (articles [5-7, 10, 14, 25, 30, 40] (see Appendix)).

3.1.5 Discussion

This scoping review has sought to describe the breadth of the Speech-Language Pathology-specific literature published on reflective practice between 1997-2012. In line with Arksey and O'Malley framework (2005), the authors' intent was to provide a descriptive account of the current knowledge base specific to issues of reflective practice. Based on the results, it appears that reflection and reflective practice are emergent concepts in the field of Speech-Language Pathology. The body of literature reviewed, although limited, is broadly supportive to the idea and importance of reflection and reflective practice. Most of the publications included in the review highlight opportunities and strategies for processes of reflection and/or reflective practice to contribute to learning and professional development in the context of Speech-Language Pathology educational and clinical practice. An underlying assumption of much of this work is that processes of reflection inform successful and competent practice.

More specifically, this scoping review points to the use of multiple and generic terms, frequently used with implied rather than explicit meanings, and a lack of conceptual clarity regarding reflection and reflective practice in the Speech-Language Pathology literature. Indeed, half of the Speech-Language Pathology literature reviewed drew primarily on classic conceptualizations of reflective practice, while the other offered no conceptualization of these processes. This observation has the potential to generate confusion and misunderstanding in scholarly work about reflection and reflective practice in the field of Speech-Language Pathology. Future works that explicitly draw on the classic conceptual

work of Donald Schön³ (Kinsella, 2010; Schön, 1983, 1987), however tentative or incomplete, could potentially mediate such confusion about terminology as well as serve to reduce potential misunderstandings about theories of reflection and reflective practice. Operationalizing and clarifying key concepts may be an important first step in moving forward with scholarship on reflective practice in the Speech-Language Pathology field. Such work could offer a common language for scholarly discussions concerning reflection and reflective practice. The importance of conceptual clarity for future scholarship in reflective practice cannot be overstated.

While the literature reviewed was not suggestive of any more practical or favoured approach over another, it draws attention to the different modalities or methods that may serve reflection. The predominant approaches to reflection identified in the review were *written reflection* and *reflective group discussion*. Such approaches might benefit from the latest healthcare professional education research that focuses on the development and evaluation of framework to foster reflective writing capacity (e.g., Wald, Borkan, Taylor, Anthony, & Reis, 2012) and small group reflection (e.g., Dawber, 2013). SLPs are in an ideal position to appreciate the significance of writing or speaking skills as mitigating factors in the processes of reflection on and assessment of learning (Chabon & Lee-Wilkerson, 2006). In that regard, the work of Schaub-de Jong and van der Schans (2010) brings attention to alternative stimuli such as using drawings and picture for reflection. In their study, the participants were asked to express a visual reflection of an experience and were “free to concentrate on expression and awareness of feelings and thoughts without needing to directly verbalize them” (Schaub-de Jong & van der Schans, 2010, p.2). In pursuing this alternative means of reflection, one may appreciate that reflection may be characterized via a variety of modalities. In this vein, the profession of Speech-Language Pathology may

³ Schön's (1983; 1987) formulation of the iterative process of reflective practice unfolds sequentially from knowing-in-action, to surprise, to framing the problem for reflection-in-action (on-the-spot reflection or “thinking on our feet” (Smith, 2001)), experimentation, and finally, reflection-on-action (retrospective or “looking back” on an experience).

also benefit from insights gained from other healthcare disciplines regarding the use of alternative and innovative reflective vehicles such as those based on the use of new technologies and multimedia (e.g., Sandars & Murray, 2009) and arts (e.g., Gauferg & Williams, 2011). The potential diversity of modalities that may serve reflection and exploit the learner's preferences and needs might be an important consideration for educators planning and designing reflective activities.

Results from this scoping review also highlighted the importance of considering context in scholarship about, and applications of, reflection and reflective practice. Reflective practice itself is concerned with how practitioners engage through reflection with the unique contextual elements of practice in order to develop professional knowledge (Kinsella, Caty, Ng, & Jenkins, 2012; Schön, 1983, 1987). In this review, university based contexts such as interdisciplinary and interprofessional courses and programs were the domains most often associated with reflection and reflective practice. As part of interprofessional education (IPE) initiatives, reflection is often cited as a key ingredient for successful educational outcomes (Clark, 2009; D'Eon, 2005). Further exploration of the meaning and nature of reflection within an IPE framework is needed to foster teamwork skills essential for SLPs to strive in interprofessional and collaborative practice (IPCP) contexts. This is consistent with the need to consider context of reflection in addition to the reflective processes used and expected outcome (Bould & Walker, 1998), especially the authenticity of the professional learning experience (Webster-Wright, 2009). It would then also appear that active professional teamwork would further foster reflection as part of clinical practice.

Finally, reflective processes were documented to take place along the entire professional development continuum, with most scholarly attention being directed to the early stages (i.e., novice-advanced beginner practitioners) and the later stages, (i.e., proficient-expert practitioners). Yet little attention is currently directed towards reflection and reflective practice of competent SLP practitioners. Among those are the newly graduated SLPs facing the challenging time of

transition from students to practitioners. This finding is surprising given that reflection is needed to further assist these less experienced practitioners in developing their professional knowledge and skills, becoming more proficient and gaining expertise in their field (Brumfitt, Enderby, & Hoben, 2005). This observation raises questions about what reflection can and should entail to ensure successful professional development of new clinicians. Clearly, more attention and research is needed on this topic and would support a professional development culture in the workplace such as mentoring (Hudson, 2010).

3.1.6 Research gaps and future directions

The following research gaps were identified in the literature on reflection and reflective practice in the field of Speech-Language Pathology:

- 1) Little research focused directly on reflection or reflective practice; rather the majority of papers included these concepts as secondary areas of study.
- 2) In more than half the papers reviewed, reflection and reflective practice were not defined at all; in the remainder, there was a lack of conceptual clarity.
- 3) The available literature tends to focus on processes of reflection and reflective practice with novice-advanced beginners (Speech-Language Pathology students) and proficient-expert practitioners, but a gap exists in the scholarship about competent practitioners.

Clearly, in addition to devoting more attention to the theory and conceptualization of reflection and reflective practice, there is an increasing need for more research evidence to support university-based and work-based educational initiatives involving reflection and reflective practice in Speech-Language Pathology. This suggestion is in line with Ginsberg, Friberg, and Visconti's (2012) call for evidence-based education in Speech-Language Pathology. Much like evidence-based practice guides clinical decision making to provide best patient outcomes; evidence-based education has the potential to provide us with valuable information from which to base our educational decisions (Ginsberg et al., 2012).

Whether our educational decisions are based on quantitative or qualitative studies, as an outgrowth of program development and evaluation reports, or through personal accounts that generate practice-based evidence, all types of evidence are important and should be utilized; this is especially important if our goal is to maximize learners' outcomes from reflection and reflective practice. More specifically, future research that seeks to explore reflective interventions' modalities and contexts in terms of acceptability, feasibility and educational and clinical impact would contribute greatly to ensuring optimal professional development of SLPs. Therefore, exploration of the interdisciplinary literature (i.e., nursing, medicine, OT, PT, and others) on reflective learning and practice could broaden scientific insights and support future research in the Speech-Language Pathology field to develop and advance the scholarship relative to reflective practice.

3.1.7 Review strengths and limitations

The proposed strengths of the present review are borne in the fact that it was undertaken in a rigorous and systematic manner and that methodological details were provided in detail to ensure transparency and increase the reliability of the findings. In addition, the team members had significant levels of expertise in the scholarship of reflection and reflective practice in various allied health disciplines. In contrast, one clear limitation must be acknowledged. Specifically, while a systematic approach was used to review the literature, it has necessarily involved the process of interpretation which always carries consideration of its subjective nature. However, while variability in the interpretation of the data reviewed is potentially a limitation, it is an inherent limitation of how one views any data set. As such, the interpretations rendered are those of the current authors, and are indicative and suggestive rather than definitive (Ehrich, Freeman, Richards, Robinson, & Shepperd, 2002).

3.1.8 Conclusion

In this scoping review, a total of 42 publications were examined in order to assess the current state of published literature on reflective practice in the field of Speech-Language Pathology. Rigorous examination of the scholarly literature on reflection and reflective practice in Speech-Language Pathology had not been undertaken previously. While Speech-Language Pathology as a profession appears to have become interested in reflection and reflective practice as an important component of clinical education and practice, and use of the terms are evident in the literature, the present mapping reveals that the scholarship on reflection and reflective practice in the field of Speech-Language Pathology is limited. It is hoped that the present findings provide a foundation from which further research and scholarship on reflection and reflective practice in the Speech-Language Pathology field can emerge.

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Appendix

**Table 1: Summary Table of Key Characteristics of the Final Literature Sample
from the Computerized Bibliographic Databases**

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
1	Roulstone (1997) UK	Research Article	Qualitative Research	Reflection (Schön, 1983); Theory of Practice (Argyris & Schön, 1974); <i>Reflection on Model of SLT Decision-Making; Group Discussion</i>	Community Clinic; Preschool Children's Communication Disorders; Assessment	Expert SLPs
2	Johnston & Banks (2000) CANADA	(Educational) Program Development & Evaluation	Program Evaluation	Reflective Practice (Schön, 1983); <i>Small Group Discussion using Case Study Approach</i>	Academic Setting; Interprofessional Education; Interprofessional Learning Modules	Graduate SLP Students; Other Health Professional Students
3	Baxter & Gray (2001) UK	(Educational) Program Development & Evaluation	Program Evaluation	Adult Learning; Reflective Learning (Boud, Keogh, & Walker, 1985); Reflection (Schön, 1987); <i>Reflective Logs; Peer Assisted Reflection</i>	Clinical Education; Paediatric Clinical Placement	Undergraduate SLP Students

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
4	Bruce et al. (2001) UK	(Educational) Program Development & Evaluation	Program Evaluation	Experiential Learning (Kolb, 1984); Reflective Learning; Reflective Practitioners (Schön, 1983); Reflection-on-Action; Reflection-in-Action; <i>Guided Written Reflection; Peer Assisted Reflection</i>	Clinical Training; Supervisory Programme	Graduate SLP Students
5	Ferguson & Elliot (2001) AUSTRALIA	Research Article	Discourse Analysis	Reflection (G); Reflective Practice (G); <i>Reflection on Descriptive Framework of Clinical Interaction</i>	Aphasia Therapy; Conduct of Treatment Session; Clinical Interaction	SLP students; Experienced SLP
6	Freeman (2001) UK	(Educational) Program Development & Evaluation	Program Evaluation	Reflective practice; Reflective Practitioners (Schön, 1983, 1987); Reflection (Boud & Walker, 1998); Reflective Learning (Kolb, 1984); <i>Reflective Logs/Learning Journals</i>	Clinical Education; Clinical Practicum	SLP Students; Clinical Supervisor
7	Geller (2002) USA	Clinical/Field Report	Program Report	Reflective Practice (G); Reflection (Boud, 1988); <i>Mentorship; Reflective Supervision Sessions</i>	University Setting; Clinical Practicum; Clinical Education Model	SLP Students; Clinical Supervisor
8	Ferguson & Armstrong (2004a) AUSTRALIA	Issues & Opinions	Literature Review	Critical Reflection (G); Reflective Practitioner (G); <i>Clinical Discourse (Therapy Talk) Analysis</i>	Clinical Practice; Aphasia Therapy; Clinical Interaction; Professional Communication	SLPs

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
9	Ferguson & Armstrong (2004b) AUSTRALIA	Issues & Opinions	Commentary	Critical Reflection (G); Reflective Practice (G); <i>Clinical Discourse (Therapy Talk) Analysis</i>	Clinical Practice; Clinical Interaction; Professional Competence; Workplace Communication; Professional Discourse; Interprofessional Communication	SLPs
10	Horton (2004) UK	Issues & Opinions	Commentary	Critical Reflection (G); Awareness of Therapy Enactment; <i>Reflection on Conceptual Framework of Day-to-Day Practice in Aphasia Therapy</i>	Aphasia Therapy; Professional Development; Professional-Client Communication	SLPs SLP Students
11	Horton et al. (2004) UK	Research Article	Placebo- Controlled Study (Deferred Intervention Design)	Experiential Learning (Kolb, 1984); Reflection (Schön, 1987); Knowing-in-Action; Reflection-in- Action; Reflection-on-Action; <i>Reflection on Therapy Enactment Frameworks; Group Discussion of Therapy Video Clips; Peer- Feedback after Small Group Teaching Simulation</i>	Academic Setting; Teaching-Learning Program	SLP Students (undergraduate and postgraduate)

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
12	Penn (2004) SOUTH AFRICA	Issues & Opinions	Commentary	Art of Reflective Practice (G); Critical Discourse Analysis/Critical Speech- Language Pathology	Clinical Discourse; Process of Therapy; Therapeutic Relationships	SLPs
13	Cruise (2005) UK	Issues & Opinions	Commentary	Reflective Practice (G); Guided Reflection; Learning Journals; Talk on Camera	Clinical Education	SLP Students
14	Muñoz & Jervis (2005) USA	Research Article	Participatory Action Research	Critical Reflection (Boud & Walker, 1998; Brookfield, 1998); Critical Reflection Papers; Group Discussion; Participation in Action Research	Academic Setting; Preprofessional Education; Interdisciplinary Seminar Course; Family-Centred Interdisciplinary Service Provision; Early Intervention	Graduate SLP Students; Other Health Professional Students; Faculty
15	Trembath et al. (2005) AUSTRALIA	Research Article	Biography	Reflection (G); Collaborative Learning (Bruffee, 1992); Peer- Learning (Lincoln & McAllister, 1993); Reflective Discussion; Reflective Journaling; Peer Debriefing	Clinical Placement; Cross-Cultural Practice	Undergraduate SLP Students

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
16	Chabon & Lee- Wilkerson (2006) USA	(Educational) Program Development & Evaluation	Content Analysis	Reflection (Moon, 2000); Experiential Learning (Kolb, 1984); Reflective Journals/ Journal Writing; Guided Reflection	Web-Based Education; Diversity Training; Learning Outcomes	Graduate SLP Students
17	Gardner (2006) UK	Clinical/Field Report	Conversation Analysis	Reflection (G); (One-on-One) Discussion of Videoed Therapy Session; Guided Observation Sheet	Pilot Interactional Training Programme; Speech Therapy Delivery by non-SLPs; Therapy Interaction; Phonological Disorders	SLP Students; Learning Support Assistants
18	Goldberg et al. (2006) USA	(Educational) Program Development & Evaluation	Program Evaluation	Experiential Learning Model and Reflection (Kolb, 1984); Service Learning/Ongoing Reflective Problem-Based Learning; Structured Reflective Journaling; Reflective Essays	Academic Course; Service Learning; Dysphagia	Graduate SLP Students
19	Brumfitt & Freeman (2007) UK	Research Article	Focus Group/ Framework Analysis	Reflective Learning (Boud, Keogh, & Walker, 1985); Reflective Collaborative Discussion; Reflective Journals	Clinical Education; University Clinic; Clinical Placement Group; Learning Experience	SLP Students

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; Practical [<i>in italics in the table</i>])	Context	Target Group
20	Case-Smith et al. (2007) USA	(Educational) Program Development & Evaluation	Program Report	Reflection (G); Reflective Journals	Interdisciplinary Graduate Program; Early Intervention Practice	Graduate SLP Students; Other Health Professionals Students
21	Higgs & McAllister (2007) AUSTRALIA	Research Article	Hermeneutic Phenomenology/Narrative Inquiry	Adult Learning Models (Knowles, 1984, Knowles et al., 1998); Reflective Practice (Schön, 1987); <i>Stories; Reflection on Model of the Experience of Being a Clinical Educator; Professional Journal// Reflective Diaries; Auditing Video- or Audio-Tapes; Mentoring; Critical Companion; Reflecting on Critical Incidents</i>	Clinical Education; Clinical Educators Training; Lived Experience of Being a Clinical Educator	Clinical Educators
22	Smith & Pilling (2007) AUSTRALIA	(Educational) Program Development & Evaluation	Program Evaluation	Reflective Practice (G); Self- Reflection; Critical Reflection; Learning Organisation (Garcarz et al., 2003; Senge et al., 1994); <i>Reflective Sessions; "Questions of the Week"</i>	Interdisciplinary Work- Based Program; Transition to Work; Interprofessional Collaboration; Recruitment and Retention	Newly Graduated SLPs; Other Health Professional Students

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; Practical [<i>in italics in the table</i>])	Context	Target Group
23	Epstein (2008) USA	Research Article	Qualitative Research (Open-Ended Interviews and Journal Entries)	Reflection on Practice (G); <i>Reflection upon Clinical Therapy Data during Supervisory Conference; Reflection upon Clinical Therapy Data in Learning Journals</i>	Clinical Supervision; Clinical Data Collection; Therapy Effectiveness	SLP Students
24	Horton et al. (2008) UK	Instrument Development & Validation	Validation of the Clinical Supervision Evaluation Questionnaire (CSEQ)	Critical Reflective Practice (G); <i>Clinical Group Supervision (Non-Managerial Peer-Group)</i>	Clinical Supervision; Clinical Governance; Quality Improvement; Quality of Care	SLPs
25	Pascoe & Singh (2008) SOUTH AFRICA	(Educational) Program Development & Evaluation	Program Evaluation/ Participatory Action Research	Critical Reflection (G); Thinking Therapist; Self-Reflection Skills; <i>Reflective Logs</i>	Academic Setting; Curriculum Development; Course Revision; Constructive Alignment	Academics; Clinical Educators; SLP Students
26	Silverman (2008) USA	Issues & Opinions	Commentary: Letter to the Editor	Reflection (G); On-Going Self- Reflection; <i>Published Personal Reflection on "An Existential Framework for Understanding the Counseling Needs of Clients" (Spillers, 2007)</i>	Clinical Therapy; Counseling; Clinical Performance	SLPs

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group	Text
27	Caty et al. (2009) CANADA	Research Article	Case Study	Reflective practice, Reflection, Reflection-in-Action, Reflection- on-Action (Schön, 1983, 1987); <i>Reflective Notes; Practitioner's Retrospective Analysis of Reflective Processes about Clinical Cases</i>	Clinical Therapy; Head and Neck Cancer Rehabilitation; Expertise; Professional Practice Knowledge	SLPs	
28	Fronek et al. (2009) AUSTRALIA	(Educational) Program Development & Evaluation	Program Evaluation	Reflective practice (G); Critical Reflection (G); Experiential Learning (G); <i>Group Discussion of Scenarios and Work-Based Dilemmas</i>	Interprofessional Training Course; Work-Based Workshops; Professional Boundaries; Professional- Client Relationship	SLPs; Other Health Professionals; Therapy Assistant; Personal Care Staff	
29	Geller & Foley (2009a) USA	Clinical/Field Report	Conceptual/ Theoretical	Reflective practice, Reflection- in-Action; Reflection-on-Action (Schön, 1983, 1987); Relationship-Based Learning and Reflective Models; Reflective Functioning; <i>On- Going Reflective Process</i>	Clinical Practice; Relationship-Based Practice; Early Intervention	SLPs	

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
30	Geller & Foley (2009b) USA	Clinical/Field Report	Conceptual/ Theoretical	Reflective practice, Reflection- in-Action; Reflection-on-Action (Schön, 1983, 1987); Relational and Reflective Supervision Model; Reflective Functioning; <i>Self-Examination through Supervision Dialogue</i>	Clinical Supervision; Supervisory Relationship; Supervisee Development	Graduate SLP Students; Newly Graduated SLPs
31	Hersh (2009) AUSTRALIA	Research Article	Grounded Theory	Reflection (G); <i>Narratives</i>	Aphasia Therapy; Discharge from Therapy; Therapeutic Relationship; Professional-Client Communication	Experienced SLPs
32	Ho & Whitehill (2009) CHINA	Research Article	Quasi- Experimental Research	Reflective learning (G); Reflective Practice (G); <i>Supervisor's Feedback (verbal and written); Guided Written Self-Evaluation</i>	Clinical Education; Clinical Practicum; Clinical Supervision	SLP Students
33	Schaub-de Jong et al. (2009) NETHERLA NDS	Research Article	Phenomenogr aphic Analysis	Reflection (Schön, 1983, 1987); Collaborative Learning; Learning Experiences; <i>Peer Meetings; Reflective Writing; Feedback; Reflective Essays</i>	University Setting; Development of Professional Behaviour	Undergraduate SLP Students

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
34	Shahmoon-Shanok & Geller (2009) USA	Clinical/Field Report	Conceptual/Theoretical	Reflective Practice (G); Relationship for Learning (Fenichel, 1992); Relational and Reflective Model (Geller & Foley, 2009a,b); <i>(One-on-One and Group) Reflective Supervision</i>	Transdisciplinary Postgraduate Training Program; Early Intervention; Mental Health Training	Experienced SLP
35	Webb-Henderson (2009) USA	Clinical/Field Report	Commentary	Reflection (G); <i>Published Personal Reflection</i>	Clinical Practice	SLP
36	Hersh (2010a) AUSTRALIA	Research Article	Grounded Theory	Reflective practice (Schön, 1983); <i>Narratives</i>	Aphasia Therapy; Therapeutic Relationship	Experienced SLPs
37	Hersh (2010b) AUSTRALIA	Issues & Opinions	Literature Review	Reflective practice (G); <i>Reflection upon What One's Do and Feel at Discharge of Clients</i>	Aphasia Therapy; Discharge from Therapy; Service Delivery	Experienced SLPs
38	O'Halloran et al. (2010) AUSTRALIA	Issues & Opinions	Conceptual/Theoretical	Reflection (G); Ethical Deliberation; <i>Self-Reflection; Story Telling; Narratives</i>	Person-Centered Practice; Ethical Practice; Professional Uncertainty and Risk	SLPs

#	Author (year) COUNTRY	Publication Type	Methodology	Approaches to Reflection and Reflective Practice (Conceptual; <i>Practical [in italics in the table]</i>)	Context	Target Group
39	Schaub-de Jong & van der Schans (2010) NETHERLANDS	Research Article	Content Analysis	Reflection (Schön, 1983); Reflective Learning; Visual Reflection; <i>Combination of Profession-Related Exercises and Reflection with Visual Aid (Pictures and Drawings)</i>	International Course; Development of Professional Behaviour	SLP Students
40	Brown et al. (2011) AUSTRALIA NEW ZEALAND	Research Article	Phenomenological Approach	Continual Reflection on Practice (G); Professional Knowledge; <i>Exploration of SLPs' Perspectives</i>	Clinical Practice; Service Provision; Aphasia Therapy	SLPs
41	Schaub-de Jong et al. (2011) NETHERLANDS	Instrument Development & Validation	Development of an Measurement Instrument: STERLinG*	Reflection (Schön, 1987); Reflective Learning; <i>Small-Groups Sessions</i>	University Setting; Professional Development Courses	SLP Students
42	Hill et al. (2012) AUSTRALIA	Research Article	Content Analysis	Reflective Practice, Reflection-in-Action, Reflection-in-Action, Reflection-for-Action (Boud et al., 1985; Mezirow, 1990; Schön, 1983); <i>Guided Written Reflections</i>	Academic Program; Clinical Placement; University Clinic; Simulated Clinical Environment; Standardized Patient	Undergraduate SLP Students

G: Generic * : Student perceptions of their Teachers' competencies to Encourage Reflective Learning in small Group

Chapter 4

4. Integrated Manuscript Three: Theoretical Paper

Reflective practice is a process of thinking 'about' and 'through' one's doings, such that practitioners become more skillful, and aware of the nature and impact of their performance within their professional practices. Reflective practice is frequently noted as an essential attribute of competent healthcare delivery; yet it is a relatively new construct in the profession of Speech-Language Pathology (SLP). Consequently, descriptions of what reflective practice entails are limited in the field. Drawing on the work of the reflective practice theorist Donald Schön, and illustrated by a clinical story inspired from the author's own experience, this paper examines the concept of reflective practice and its key tenets. It is suggested that reflective practice is an important and relevant framework to continue to develop within the SLP profession because of its potential to foster the development of professional knowledge relevant for practice and improved provision of clinical service.

4.1 Reflective Practice: An Approach to Knowledge Generation in Speech-Language Pathology

4.1.1 Introduction

It may be argued that Speech-Language Pathologists (SLPs) frequently engage in the process of “reflective practice” without necessarily knowing what it is or referring to the process using this terminology. Practitioners reflect on their clinical practice and seek to change their actions to improve their clinical performance and client outcomes. However, it is often difficult to ‘see’ or identify the reflective processes involved in such actions. Below is a clinical scenario that sheds light on what reflective practice might look like in professional practice:

Mrs. Maitlin sought a Speech-Language Pathology consultation regarding her 5 years-old son's stuttering. While the presence of a mild fluency disorder was confirmed at initial assessment, a severe phonological disorder was also noted. Further assessment and phonological therapy was deemed the clinical treatment priority at this time, especially when considering that a phonological disorder might place her son at risk for reading difficulties and eventually negatively affect his school achievement. The mother seemed uneasy when told about this suggested orientation to therapy but rapidly regained her composure and inquired into the kind of work to pursue at home. The experienced SLP reflected privately: "It seems to me that this mother is not comfortable with what I just told her. I am going to pause for a moment and check in with her about her understanding of and comfort with what I've just shared and the recommendations offered for home". By reflecting on what she had witnessed, and changing her course of behaviour, the clinician was able to gain further insight into the mother's thoughts and feeling about the Speech-Language Pathology therapy, to discuss the situation in more depth, and to build the mother's trust in their clinical relationship, thereby creating the conditions for a greater likelihood of a successful therapeutic intervention.

Reflective practice has become widely recognized as an essential dimension in the professional development of competent healthcare practitioners (Benner, 2001; Epstein, 1999; Eraut, 1994) and this topic has gained great interest across various healthcare professions (Mann, Gordon, & MacLeod, 2009). In the field of Speech-Language Pathology, reflective practice has not been widely discussed in the literature and has only recently begun to be studied in any comprehensive and meaningful way (Caty, Kinsella, & Doyle, 2009). Nevertheless, members of the profession of Speech-Language Pathology have become interested in reflection and reflective practice as evidenced by the growing use of reflective approaches in teaching and learning in clinical education (e.g., Sheepway, Lincoln, & Togher, 2011). Further, its implementation as a standard for licensing and registration of SLP practitioners (e.g., College of Audiologists and Speech-Language Pathologists of Ontario (CASLPO)'s Quality Assurance's Self-

Assessment Program) has now emerged. Given the rise in the use of reflective practice within the profession and the fact that reflective practice is a relatively new construct in the Speech-Language Pathology discipline, I contend that a rigorous examination of the concept of 'reflective practice' is both important and timely. In an effort to respond to this need, an examination of the concept of reflective practice will be undertaken along several lines.

First, reflective practice and reflection are defined, and depicted in relation to the concept of experiential learning. To appreciate fully the scope of the concept of reflective practice, it is important to consider the work of its originator Donald Schön (1983; 1987), as well as the key assumptions about knowledge that is embedded within the reflective practice framework. In this regard four theoretical underpinnings⁴ of the theory will be briefly discussed; these areas include: (1) knowing-that and knowing-how, (2) tacit knowledge, (3) theories of action, and (4) constructivist knowledge. This is followed by an overview of three key elements of reflective practice - indeterminate zones of practice, frame reflection, knowing-in-action, as well as an examination of different types of reflection used by reflective practitioners, specifically reflection-in-action and reflection-on-action. These key terms inform a conceptual understanding of reflective practice pertinent to considerations of its application in Speech-Language Pathology that will then be depicted in the form of a clinical scenario.

4.1.2 Reflective practice: The legacy of Donald Schön

Donald Schön first coined the term 'reflective practice' in the mid-1980's. Since the publication of his seminal work (1983; 1987) many definitions of reflective practice have been proposed across several fields which has resulted in a lack of clarity about terminology and understanding of the concept (Atkins & Murphy, 1993; Bannigan & Moores, 2009; Grimmett, 1988; Mann et al., 2009; Rogers, 2001). In addition, the terms reflection and reflective practice are often conflated

⁴ The reader is referred to Kinsella (2006, 2007a, 2007b, 2010) for an in-depth discussion of these theoretical underpinnings.

and this contributes to conceptual confusion surrounding interpretations of reflective practice (Kinsella, 2007a). Schön (1987) describes reflective practice as a form of inquiry by which practitioners make connections between general knowledge and particular cases when faced with problematic situations. He goes on to describe reflective practice as “a dialogue of thinking and doing through which I become more skillful” (p. 31) or the process of thinking and acting together in the “context of reflective inquiry” (Schön, 1983, p.69). Therefore, reflective practice is a dynamic process.

Other definitions from authors who have discussed the concept of reflective practice include that proposed by Jarvis (1992) where reflective practice is seen as “actions that are carefully planned in relation to the theory known to the professional and consciously monitored, so that outcomes of the action will be beneficial to the patient” (p.177). Reflective practice has also been defined by Osterman and Kottkamp (1993) as the “means by which practitioners can develop a greater level of self awareness about the nature and impact of their performance” (p.19). Another definition by Moon (2004) suggests:

... a form of mental processing – like a form of thinking – that we may use to fulfil a purpose or to achieve some anticipated outcome or we may simply ‘be reflective’ and then an outcome can be unexpected. Reflection is applied to relatively complicated, ill-structured ideas for which there is not an obvious solution and is largely based on the further processing of knowledge and understanding that we already possess. (p.82)

Essentially, reflective practice draws attention to the process of what practitioners learn through reflection on experience in the midst of complex professional practices and considers how professional actions are informed and how implicit and explicit professional knowledge is developed.

Closely related to the concept of reflective practice is the process of experiential learning. Kolb depicts such learning as the “process whereby knowledge is created through the transformation of experience” (Kolb, 1984, p.38). Several theoretical conceptualizations of experiential learning directly incorporate processes of reflection (e.g., Dewey, 1933; Kolb, 1984; Mezirow, 1981). For example, the experiential learning process in Kolb’s theory (1984) is described as

a four-phase cycle in which the individual learner: (1) encounters a *concrete experience* or a specific activity that provides a basis for, (2) *observation and reflection* on the experience and his or her own response to it; these reflective observations are then (3) transformed into an *abstract conceptualization* (i.e., they are integrated into a conceptual framework or related to other concepts in the learner's past experience and knowledge from which implications for action can be derived), and then (4) further tested through *active experimentation* and applied in different situations to make decisions and solve problems. Although Kolb's experiential learning cycle comprises reflection as one of its four components (experience, reflection, conceptualization, and experimentation), it is Schön's theory of reflective practice that distinctively elaborates the process of reflection in professional practice in relation to the generation of professional knowledge. One way to view knowledge derived from practice is to consider an experienced practitioner who helps a novice practitioner to acquire a new skill. The instructions, knowledge, insights, and rationale provided to the learner by the experienced practitioner constitute the kind of critical knowledge that may then lead to appropriate and successful performance in everyday practice. One may not only view this knowledge as a blend of different sources of knowledge, but also as types of knowledge that evolve from clinical situations that are not often found in textbooks or journals.

In his seminal book "*The Reflective Practitioner: How Professionals Think in Action*", Schön (1983) explores the different sources of professional knowledge and inquires about the kind of 'knowing' in which competent practitioners engage. He contends that 'technical rationality' (i.e., the application of scientific theory and technique to the instrumental problems of practice) is important, but that it has been overemphasized (Kinsella, 2007a). He posits that there is a different kind of knowledge embedded in professional practice, one that is different from the kind of knowledge presented in textbooks, scientific papers, and professional journals. In his words, "knowing-in-practice" is often tacit and "competent practitioners usually know more than they can say" (1983, p.viii). Schön subsequently calls for inquiry into the 'epistemology of practice', a request for practitioners to attend to,

document, and test models of knowing that arise from reflection both “in and on” practice. He posits reflective practice as a way for practitioners to learn from experience, but also as a way to generate knowledge from practice. Thus, practice itself provides a platform for learning.

Schön’s work pays close attention to knowledge revealed in professional performance. His work calls for an increased consideration of the kind of knowledge that emanates from and is generated through practice. This is of contemporary relevance for many reasons. For example, a number of scholars note that knowledge gained from experience in professional practice remains largely ignored in the contemporary evidence-based health care system (Higgs, Titchen, & Neville, 2001). Higgs and Titchen (2001) argue that a sole emphasis on evidence-based practice may limit the perceived value and consideration of different types of knowledge that clearly are embedded within practice. In the field of Speech-Language Pathology, Beecham (2004) comments that evidence-based practice attributes power to the practitioner as a ‘knower of knowledge’, thus, potentially limiting consideration of the values and preferences of clients which may then be detrimental to optimal care. Also in the field of Speech-Language Pathology, McAllister and Lincoln (2004) discuss the possible loss of competent practitioners to “burnout” as a consequence of the lack of attention to knowledge derived from work and life experience. When such knowledge is neglected or discounted, it may be dehumanizing for both clients and practitioners; this in turn may influence the quality of care they provide and ultimately the retention of health professionals as practitioners. Reflective practice draws attention to the various types of professional knowledge as well as to the different, but nevertheless rigorous, ways in which such knowledge informs and may be generated from practice (Schön, 1983, 1987).

In summary, reflective practice is a theory that attends to the centrality of practitioner experience in the generation of knowledge relevant to practice. The information presented highlights the intimate relationship that exists between the practitioner’s learning processes and his/her reflection through the model of

experiential learning. Reflective practice is a process that recognizes the value of knowledge generated from practice experience and acknowledges such knowledge as an epistemology of practice. Some have suggested that such knowledge derived from clinical and practice experience should be considered as part of the evidence for evidence-based practice (e.g., Roulstone, 2011). As such, reflective practice has the potential to offer an important complement to evidence-based practice in our conceptualization of professional knowledge. In the next section, I will examine four assumptions about knowledge proposed as being central to understanding the concept of reflective practice.

4.1.3 Key assumptions about knowledge in the reflective practice framework

Four assumptions about knowledge are explicitly embedded in the theory of reflective practice. Further, these assumptions are directly relevant to professional practice. These four assumptions are as follows: a) 'knowing-that' and 'knowing-how', b) tacit knowledge, c) theories of action, and d) constructivist knowledge. These assumptions are instrumental to understanding how the conceptualization of knowledge of reflective practice differs from that of behaviourists for whom content knowledge is assumed to be accumulated as a storehouse of facts (Kolb, 1984).

4.1.3.1 'Knowing-that' and 'knowing-how'.

An important theoretical distinction that appears to underpin reflective practice and Schön's thinking about professional knowledge is that between 'knowing-that' and 'knowing-how'. The work of philosopher Gilbert Ryle (1949) is proposed to have contributed significantly to Schön's ideas in this regard (Kinsella, 2007b). Ryle distinguished between two types of knowledge - 'knowing-that' and 'knowing-how'. 'Knowing that' commonly produces propositional knowledge (Kinsella, 2007b; Polanyi, 1967; Ryle, 1949; Schön, 1983), a process known as knowledge derived from research and theory. This type of knowledge is made explicit in generalizable statements or claims and is commonly thought of as

professional knowledge. 'Knowing how' is the implicit knowledge embedded in the practice itself; it evolves from the practice of doing. 'Knowing how' is a kind of knowledge that is not usually found in books, but knowledge that is revealed through intelligent action, commonly known as "procedural" knowledge. Procedural knowledge is derived from a practitioner's specific experience about a particular patient, in a particular context, and at a particular time.

Ryle (1949) argued that intelligence is revealed in a person's 'doings', in one's intelligent actions. Drawing on this insight, 'knowing how' depicts implicit knowledge that is embedded in the practice itself, a knowledge derived through the act of *doing*. This idea of knowledge as revealed in the action itself is taken up by Schön's who writes that "knowing how is *in* the action" (1983, p.50). Schön goes on to elaborate on the relationship between "knowing-how" to the development of professional knowledge through his conception of knowing-in-action. Schön's theorizing of knowing-in-action refers to the know-how revealed in practitioners' intelligent action in the midst of practice. According to Schön (1983), such knowledge is revealed through spontaneous and skilful performances in professional practice. Drawing on Ryle, Schön contends that there are other ways that practitioners know and that such knowing is often revealed in their performance and actions (Kinsella, 2007b; Schön, 1983). Therefore, Schön's move toward considering knowing-how rather than solely propositional knowledge (i.e. knowing-that) in building professional knowledge calls for consideration of an alternative epistemology of practice one that is relevant to Speech-Language Pathology as a clinical field. This epistemological consideration will be discussed further in subsequent sections.

4.1.3.2 Tacit knowledge.

Another major contribution to thinking about professional knowledge that underpins Schön's reflective practice is the idea of tacit knowledge (Kinsella, 2007b). Tacit knowledge (implicit knowledge as opposed to explicit/formal knowledge) is the knowledge that practitioners are not readily able to articulate and which is embedded in their professional practice. Tacit knowledge has been

written about by the well-recognized philosopher Michael Polanyi in *The Tacit Dimension* (1966). Polanyi (1966) contends that "...we can know more than we can tell" (p.4). He further argues that this knowledge, which cannot be put into words, is a tacit way of knowing and an inseparable part of any scientific knowledge. From Schön's (1983) perspective, such tacit knowledge is critical in carrying practitioners efficiently through their everyday work.

Schön's (1987) work on reflective practice highlights the significance of tacit knowledge for professional practice. More directly, Schön (1983, 1987) contends that tacit knowledge is a form of knowledge that is under-represented in light of the emphasis on knowledge informed by technical rationality that exists in the professions (Kinsella, 2007a). For Schön (1983, p.50), tacit knowledge is revealed in the "intelligent action" or the "knowing-in-action" of the practitioner and revealed through successful action in practice. Subsequently, Schön (1983) calls on the practitioner to pay more attention to tacit knowledge in order to develop and to sustain competent practice. This offers an important contribution to the conception of professional knowledge because it challenges normative conceptions of professional knowledge that emphasizes scientific theory and technique and technical problem solving based on special scientific knowledge. Tacit knowledge also challenges the assumption that we can always readily say what we do or would do in a given situation. Thus, tacit knowledge comprises a critical element in the process of reflective practice.

4.1.3.3 Theories of action.

A third unique contribution to understanding reflective practice and professional knowledge has been explained by Argyris and Schön (1992). They suggest that practitioners hold theories of action consisting of: (a) espoused theories and (b) theories-in-use. Espoused theories are those principles and beliefs that practitioners can easily talk about to explain and justify their behaviour(s). These are the principles of action that practitioners give allegiance to and they often carry the profession's explicit principles and values. On the other hand, theories-in-use are implicitly located in the patterns of behaviour exhibited by the

practitioner. Theories-in-use actually govern practitioner actions and in fact, it is frequently what they actually do. Yet most often practitioners are unable to describe these theories-in-use. According to Argyris and Schön (1992), a beginning point for reflection, and the development of professional knowledge, lies in scrutinizing the inconsistencies between a practitioner's espoused theories and theories-in-use. The pursuit of this process either on one's own, or with a trusted colleague, contributes to a unique form of professional knowledge (Kinsella, 2000). Thus, a third way in which Schön's work contributes to our ways of thinking about professional knowledge is through the idea of theories of action that inform practice, as well as how discrepancies between what people say and what people do provide the means for developing knowledge that is relevant to professional practice.

4.1.3.4 Constructivist knowledge.

A fourth unique assumption related to professional knowledge that underlies reflective practice is a constructivist perspective. The term constructivist refers to the active manner in which individuals construct knowledge (Fosnot, 2005; Kelly, 1963; Kinsella, 2006; von Glasersfeld, 1983; 1989). A constructivist orientation toward knowledge may be seen to underlie Schön's theory of reflective practice (Kinsella, 2006). Constructivists assume that knowledge is constructed within cultural and social contexts: We come to know through relationships, reflections, and negotiations of explanation and meaning within our community (Fosnot, 2005). From a constructivist perspective (Goodman, 1978), the world of professional practice is continuously made and remade through acts of naming and framing different information, and making sense of it in order to coherently organize and orient one's professional actions (Kinsella, 2006; Schön, 1987). As a result, professional knowledge used in everyday practice can be viewed as the consequence of as an interplay between various types of knowledge (Ewing & Smith, 2008; Richardson, Higgs, & Abrandt Dahlgren, 2004). In short, if one accepts a constructivist view of knowledge, doing so has significant implications

for how one conceives the development of professional knowledge in the professions, including that which occurs within Speech-Language Pathology.

In summary, and in the interest of advancing our understanding, the preceding discussion has examined four critical assumptions about knowledge that are embedded within the theory of reflective practice, that is knowing-that (propositional knowledge) and knowing-how (procedural knowledge), tacit knowledge, theories of action, and constructivist knowledge. Consideration of knowing-how in the building of professional knowledge calls for the recognition of a practice epistemology in the health professions (Richardson, Higgs, & Abrandt Dahlgren, 2004). Tacit knowledge might not be readily articulated but according to Schön (1983), this is the knowledge on which competent professional practice is largely based. Possible avenues for developing professional knowledge are found through the process of reflectively comparing one's espoused theory with one's theory-in-use. Finally, a constructivist view of knowledge points to the consideration of one's professional knowledge base as being one that is continuously constructed based on active reflection and an integration of unique experience. In the next section, I will address key elements of reflective practice as they relate to the active generation of professional knowledge.

4.1.4 Key elements of reflective practice

There are three key concepts that are useful to understanding reflective practice as a basis for professional learning and the generation of professional knowledge. These concepts include: (a) indeterminate zones of practice, (b) frame reflection, and (c) knowing-in-action. Because of their direct influence on the development of knowledge via reflection, each will be briefly outlined in subsequent sections.

4.1.4.1 Indeterminate zones of practice.

In contemporary professional settings, practice is characterized by multiple courses of actions, the competing interests of many stakeholders, shifting goals

and roles of professionals and expectations of employers, incomplete and dynamic information, and unknown outcomes. Therefore, current healthcare practice requires that practitioners negotiate what Schön (1983, 1987) has termed the 'indeterminate zones' of professional practice, those situations that fall outside of the realm of clear-cut cases and for which technical and scientific approaches tend to be insufficient. For example, few decisions in professional practice are purely right or wrong; rather, practitioners are frequently called upon to make judgments about the use of more or less appropriate approaches in particular contexts with unique clients. Practitioners must accommodate to and perform within complex, ambiguous, uncertain and ever-changing practice contexts, known in the reflective practice literature as the indeterminate zones of practice (Schön, 1983, 1987).

According to Schön (1983), technical and scientific approaches are frequently ineffective in negotiating these indeterminate zones of practice. Reflective processes spring from indeterminate and unsettling clinical situations and are frequently carried through until the situation or event is no longer indeterminate, no longer unbalanced, or no longer in doubt. For Schön, reflection is a more elaborate process than a simple problem-solving process because it embraces evaluation of alternative explanation(s) for the problem and consideration of the diverse course(s) of potential actions and their underlying assumptions (Reynolds, 1998). Indeterminate zones of practice are, therefore, situations where reflection is required. In the process of adaptation and improvisation to resolve any given clinical problem, practitioners think about the complexity of the clinical case and relevant underlying theories and seek to refine these theories to learn meaningfully through reflective practice (van der Gaag & Anderson, 2005). Schön (1983) views this process as the practitioner's effort to build their "*repertoire* of examples, images, understandings and actions" (p.138) for clinical practice. In his words: "...each new experience of reflection-in-action enriches his [her] repertoire." (Schön, 1983, p.140). Thus, indeterminate zones of practice are not only situations where reflection is required, but also locations where practitioners may develop and expand their knowledge.

4.1.4.2 Frame reflection.

Framing the problem through reflection encompasses a process of how the practitioner selectively attends to and gives specific attention to certain variables within a clinical situation. This process permits the practitioner to identify the problems to which he/she will attend (e.g., how to respond to the client or what to do next). The agency of the practitioner allows him/her to critically select the characteristic of a problem and to frame issues and set the boundaries of the situation. As noted by Schön: "...professional practice has at least as much to do with finding the problem as with solving the problem found" (1983, p. 18). He further suggests that, "problems do not present themselves to the practitioner as givens", but rather, "they must be constructed from the materials of problematic situations which are puzzling, troubling, and uncertain" (Schön, 1983, p.40). One's attempt to 'set' or frame the problem is as important for the reflective practitioner as the action(s) that he/she will take toward resolving the problem (Schön & Rien, 1994).

4.1.4.3 Knowing-in-action.

At the core of Schön's work on reflective practice is the concept of 'knowing-in-action'. Knowing-in-action is often tacit, and is reflected in intelligent action in professional practice such that it does not necessarily involve a prior intellectual operation (Schön, 1983, 1987). Schön suggests that valuable intrinsic knowledge is found within intelligent professional action and that the practitioner's performance comes with an internal 'script' or theory of action. In his view, knowing-in-action is the implicit knowledge that allows professionals to perform competent actions in their daily practice. It is 'what' professionals do to achieve the desired results. In highly predictable activities, repetitive tasks and routines, this knowing-in-action is automatic, implicit, internalized. When a situation or a response to it does not fit with the 'ordinary' tacit knowing-in-action, the practitioner then experiences a dilemma or cognitive disequilibrium. This encounter may either lead the practitioner to deny or not attend to the issue or conversely, to pause and reflect in an effort to address it appropriately. This idea

suggests that reflection may be based on complex or advanced capacities for which not all clinicians may have awareness.

4.1.5 Different types of reflection

Schön's (1983) primary focus specific to reflective practice was on reflection-in-action as he believed it to be the essence of the knowing enacted in the professional performance. However, he also considered the importance of reflection-on-action in this context. It is, therefore, useful to differentiate the two types of reflection by considering the temporal dimension (i.e., when does reflection take place?) and the content of the reflection (i.e., what is the reflection about?). Each of these will be addressed in sections below.

4.1.5.1 Reflection-in-action.

Reflection often begins when there is an outcome that does not meet the practitioner's expectation or when a practitioner considers a new clinical situation (i.e., brings a beginner's or a fresh perspective to the situation). During reflection-in-action, attention is directed towards the puzzlement that arose from the situation. Yet the moment when reflection occurs differentiates reflection-in-action from reflection-on-action. Reflection-in-action occurs in the midst of action, while the reflection can still make a difference in the course of action commonly referred to as "thinking on your feet" (Schön, 1983, p.54). Expert practitioners generally go through this process more and without consciously pausing to think about it than do beginning practitioners (Benner, 2001). An example of reflection-in-action might be when a clinician notices that a therapy task is emotionally charged for a client and consequently decides to allow the client to express how s/he feels about his or her loss. In this situation, the clinician's ability to reflect-in-action serves to redirect the client's course of action to respond to the problem or crisis occurring in the moment.

Reflection-in-action "...is at the heart of the conception of art of practice or professional artistry". (Schön 1983, p.279) and for some practitioners "it is the

core of practice.” (Schön, 1983, p.69). Some scholars (Eraut, 1995; Grimmer, 1988; Moon, 1999), however, raise doubts about the capacity of practitioners to be aware of such a short lasting process. In fact, some contend that if you stop or pause in the midst of action you are already reflecting on the action. This situation is the dimension of the reflective practice theory that will be outlined subsequently.

4.1.5.2 Reflection-on-action.

Reflection-on-action occurs after the event, in the aftermath of action. According to Brookfield (1995) it is an “opportunity to reflect back on the memories, experience, interpretations that caused us to make what felt like instinctual responses” (p.42). Reflection-on-action is a kind of retrospective thinking, looking back on the situation or event (Kinsella, 2000). When thinking back on a situation, other dimensions of practice can be considered, such as contextual or organizational variables, or the values at stake in the situation. For example, a SLP might reflect upon a client’s sudden discontinuation of therapy and reflect on what she might have done to develop a stronger therapeutic alliance with the family, so that disclosure of any concerns would take place. These reflections then inform the practitioner’s interactions with the next client such that actions may change as a result of reflections on her previous encounter and action(s).

Practitioners are often confronted with conflicts in values, goals, purposes, and interests (Schön, 1983). Reflection-on-action allows practitioners to distance themselves from clinical practice and explore why they acted as they did. Doing so may facilitate one’s ability to potentially become aware of how such values, goals, purposes, and interests are implicated in the clinical decision made. Reflection-on-action is, therefore, an opportunity to reflect on what went well and what did not go well, ultimately leading to preparation for the upcoming task or interaction, in order to change one’s practice and improve patient outcomes (Kinsella, 2001). When such reflection takes place before an event (e.g., goal setting or even anticipation of potential problems) it has been referred to as anticipatory reflection (van Manen, 1991). Schön did not comment substantially

about anticipatory reflection, but it is commonly used in practice. Reflection-on-action provides an active opportunity for practitioners to pause and reflect on a recent clinical experience, to further explore what arose from the situations, and to acknowledge the professional learning that occurred through the expected or unexpected outcomes encountered (Kinsella, 2007a).

4.1.6 Clinical case study: Unpacking reflective practice

In returning to the clinical scenario outlined at the beginning of this article, and in considering many similar ones that may naturally occur in everyday practice, key elements of reflective practice can be observed. First, the SLP attended to the *indeterminate zones* of the situation, she surfaced and appreciated her *tacit understanding* or *knowing-in-action* that something was not sitting well with the child's mother. Next, she then framed this as a potentially problematic situation in terms of possible outcomes for the child and for the therapeutic relationship with the mother (*frame reflection*). Then, recognizing that more information was required, she inquired about the mother's reaction to her proposed treatment plan. Through this process, the SLP practitioner engaged in *reflection-in-action*; although the practitioner seemingly interrupted the flow of the therapy, in fact, she was reflecting in the moment. Her 'on the spot' reflection and response yielded a successful change in direction in the midst of the situation. If the SLP had been inattentive to the mother's reaction and continued moving forward with the therapy by explaining the home exercise program, the mother may not have engaged with the therapeutic recommendations, or shown up to the next appointment. The ultimate outcome of not being a reflective practitioner is that the mother may eventually have dismissed the therapy all together, a decision that may have not been fully informed.

Argyris and Schön (1992) suggest that such intelligent and skillful interventions are guided by internalized 'scripts' or *theories of action*. The SLP's 'feel for' the situation and her intuitive judgment and skill were not derived from any specific research-based theories, but rather from her repertoire of familiar examples that

were built from her experience (Schön, 1983, 1987). If the therapist then reflects back on her actions (*reflection-on-action*) and explicitly adds this to her repertoire of successful interventions, she is adding to her future possibilities for action in professional practice. The result of reflection-on-action ultimately serves to provide the practitioner with developing knowledge relevant for practice, or what Schön (1987) might refer to as an *epistemology of practice*.

4.1.7 Summary

As health care professionals, reflection is something we all frequently do in our professional capacity, yet we may do so more often than we may explicitly realize. Reflective practice is about more than merely engaging in reflection. More specifically, reflective practice consists of the potential for knowledge generation through reflection on experiences in professional practice. As noted in earlier sections of this article, there are many divergent and emerging conceptualizations of reflective practice. The present work has drawn significantly on the foundational theoretical work of Donald Schön (Argyris & Schön, 1992; Schön, 1983, 1987; Schön & Rein, 1994) in an effort to define and consider the question of 'What is reflective practice?'. In response to this question, some of the major theoretical assumptions about knowledge embedded in Schön's reflective practice framework were highlighted, including: (a) knowing-how and knowing-that, (b) tacit knowledge, (c) theory of action, and (d) constructivist knowledge. Presentation of this information was followed by an overview of three key elements of reflective practice: (a) indeterminate zones of practice, (b) framing reflection, and (c) knowing-in-action. Next, an examination of different types of reflection served to differentiate between: (a) reflection-in-action and (b) reflection-on-action. Lastly, a common case scenario was used to illuminate these concepts and to extend their applicability to the development of knowledge relevant for Speech-Language Pathology practice.

Drawing on this collective discussion, I suggest that reflective practice is an important, relevant, and critical framework to continue to develop within the

Speech-Language Pathology profession. Reflective practice is essential because of its potential to foster the development of professional knowledge in Speech-Language Pathology. Both scholars and practitioners have argued that there is a fundamental need to attend to the knowledge that may be generated through the process of reflection on one's experience in practice. If such a process is pursued by practitioners, the scope of knowledge relevant for Speech-Language Pathology practice may be more accurately depicted. Ultimately, however, the greatest value that will emerge from the use of such knowledge is the continuing capacity for the achievement of competent practice, a goal that will have both a direct and meaningful impact on those we serve.

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Chapter 5

5. Integrated Manuscript Four: Conceptual Paper

As a profession, Speech-Language Pathology has recently focused on reflection and reflective practice as important components of clinical education. However, little systematic consideration of the potential value of reflective practice within the field has been undertaken. The purpose of this paper is to consider how reflective practice is relevant to contemporary Speech-Language Pathology practice. Drawing on comprehensive and diverse theoretical literature, we suggest that reflective practice is a framework worthy of consideration because of its potential to: (1) foster the generation of knowledge from practice, (2) balance and contextualize science with patient care, (3) facilitate the integration of theory and practice, (4) link evidence-based practice with clinical expertise, and finally, (5) contribute to the cultivation of ethical practice.

5.1 Reflective Practice in Speech-Language Pathology: Relevance for Practice and Education

5.1.1 Introduction

The profession of Speech-Language Pathology has become interested in the concept of reflection and reflective practice as an important component of clinical education. Yet to date, reflective practice has not been widely examined in the Speech-Language Pathology scholarly literature and it has only recently begun to be studied in any meaningful way (Caty, Kinsella, & Doyle, 2009; Hill, Davidson, & Theodoros, 2012). Whether a reflective approach is adopted as a teaching strategy to facilitate clinical education or is required as a standard for licensing and registration, what remains unclear behind the call for its adoption is the essential question of 'why'? The rationale for integrating reflective practice into Speech-Language Pathology is difficult to elucidate given that the systematic

consideration of its potential value is only beginning to occur in the field. This raises the question: What does reflective practice potentially offer to the field of Speech-Language Pathology, and more specifically, what can it offer to the professional practice of Speech-Language Pathologists (SLPs)? Given the growth of interest in and the adoption of reflective practice in other disciplines (Mann, Gordon, & MacLeod, 2009), as well as increased calls for attention to reflective practice in the Speech-Language Pathology profession (Geller & Foley, 2009a; Geller & Foley, 2009b; Hersh, 2010; Horton, 2004), an examination of its value to Speech-Language Pathology is needed. In this paper, the relevance of reflective practice to contemporary Speech-Language Pathology practice is examined in an effort to provide justification for the adoption of reflective practice as a viable and critical component of clinical training and continuing education.

5.1.1.1 Objective.

The objective of this paper is designed to critically examine the potential relevance of reflective practice to Speech-Language Pathology. In order to meet this objective, a short overview of reflective practice is initially provided. This is followed by a critical analysis of reflective practice. Through that analysis we suggest that reflective practice has the potential to contribute to the Speech-Language Pathology field through its capacity to: (1) foster the generation of knowledge from practice, (2) balance and contextualize science and patient care, (3) facilitate the integration of theory and practice, (4) link evidence-based practice with clinical expertise, and finally, (5) contribute to the cultivation of ethical practice.

5.1.2 Reflective Practice: An Overview

There are many different conceptualizations and ideas about what constitutes the theory of reflective practice, as well as its purposes and applications. In their comprehensive review of reflective practice in health professional education, Mann, Gordon, and McLeod (2009) offer a useful way of conceptualizing the different reflective models by distinguishing between the process of reflection

itself (i.e., Boud, Keogh, & Walker, 1985; Schön, 1983; 1987) and those that identify different levels of reflection (i.e., Dewey, 1933; Hatton & Smith, 1995; Mezirow, 1991; Moon, 1999). More importantly, Mann, Gordon, and McLeod (2009) point out a common premise to these models: the examination of experience through deliberation resulting in learning guiding future actions. In terms of purposes and applications, reflective practice has been described as having different roles. More directly, reflective practice may be viewed as a way to link theory and practice, to generate theory about practice, to better understand the conditions under which practitioners work, to develop professional knowledge and expertise, and to improve actions in professional practice (Bolton, 2005; Greenwood, 1998; Honor Society of Nursing, 2005; Johns & Freshwater, 2005; Kinsella, Caty, Ng, & Jenkins, 2012).

The origin of reflective practice lies in the seminal work of Donald Schön who was influenced by the earlier work of reflective theorists such as philosopher John Dewey (1933). Dewey (1933, p.9) defined reflection as “active, persistent and careful consideration of any belief or supposed form of knowledge in light of the grounds that support it and further conclusions to which it tends”. Schön (1983) introduced the ‘reflective practitioner’ as an individual who uses reflection to revisit experience in order to learn from it, and to frame the “messy and confusing problems” (Schön, 1987, p.3) found in professional practice (Kinsella, 2007; Schön, 1987). In his writings, Schön (1983; 1987) has explored the different sources of professional knowledge and inquired about the kind of ‘knowing’ with which competent practitioners engage. He describes reflective practice as a form of inquiry by which practitioners make connections between general knowledge and particular cases when faced with problematic situations (Schön, 1987). Essentially, Schön’s (1983; 1987) theory of reflective practice draws attention to what practitioners learn through *reflection on* experience in the context of unique and complex professional practices and consequently, considers how knowledge relevant for practice is generated from this experience.

Schön posits that technical rationality (i.e. the application of scientific theory and technique to the instrumental problems of practice) is important for professional practice, but suggests that it has been overemphasized (Kinsella, 2007; 2010). He contends further that there is a complementary and different kind of knowledge embedded in competent professional practice. In Schön's view, there is an epistemology of practice that is displayed "in the artistic, intuitive processes which some practitioners do bring to situations of uncertainty, instability, uniqueness and value conflict" encountered in practice (Schön, 1983, p.49). In other words, when SLPs reflect on "what to do" in such situations, they draw from an important repertoire of knowledge built from experience that can lead to successful outcome. Thus, reflective practice is the process of surfacing, examining, testing, and refining the kind of practical knowledge that may yield effective professional interventions and learning (Argyris & Schön, 1992; Schön, 1983).

5.1.3 Relevance of Reflective Practice for Speech-Language Pathology

Clearly many variables contribute to becoming an effective SLP. Most SLPs would agree that these include such things as a sound theoretical and scientific knowledge base across multiple disciplines and areas of study, as well as good technical skills. Moreover, no one would refute that being an effective practitioner also requires the capacity to successfully manage complex contextual situations that arise in practice and to exhibit the requisite interpersonal skills that will occur as part of therapeutic practice. Nevertheless, we propose that reflective practice is important for SLP practitioners, and for the Speech-Language Pathology profession, because it offers opportunities for enhancing effectiveness in professional practice. We contend that reflective practice has the potential to directly influence Speech-Language Pathology practice in at least five ways. The areas of practice that are influenced by reflection include the practitioner's ability to: generate knowledge from practice, balance and contextualize science with patient care, integrate theory and practice, link evidence-based practice and

clinical expertise, and cultivate ethically guided practice. Each of these critical areas will be addressed in the sections to follow.

5.1.3.1 Generating Knowledge from Practice.

Reflective practice draws attention to the ways in which knowledge is generated through *reflection in* and *reflection on* practice experience. For example, reflection on clinical situations, relationships, or organizational issues encountered in the workplace are potential sources of professional learning that become integrated into a practitioner's repertoire of knowledge, or 'practice-based evidence' (Gabbay & le May, 2011). Schön (1983, 1987) contends that the practitioner's everyday performance depends to a significant extent on knowledge derived from reflection on informal experiences in workplace. He posits an "epistemology of practice" in which professional knowledge is developed from the practitioner's process of "making sense of their professional experience" (Richardson, Higgs, & Abrandt Dahlgren, 2004, p.8). Further, one's epistemology is "revealed in the pragmatic competencies reflected in practitioner action" (Kinsella, 2007, p.105).

A number of scholars contend that professional knowledge gained through reflection on professional practice experience remains underutilized in the contemporary health care system (Beecham, 2004; Gabbay & le May, 2011; Higgs, Titchen, & Neville, 2001; Kinsella, 2010). For instance, Gabbay and le May (2011) have called for greater attention to the ways in which practice-based knowledge is generated and how it ultimately contributes to professional practice. Others have suggested that it is important to make explicit the tacit knowledge that informs professional practice (Higgs & Titchen, 2001; Higgs, Richardson, & Dahlgren, 2004) and to contribute to disciplinary knowledge bases by sharing such knowledge in collective forms (Kinsella & Whiteford, 2009). In Speech-Language Pathology, such discussions are only beginning to occur. Beecham (2004) has directly suggested that it is urgent for Speech-Language Pathology as a profession to "understand what we do in practice; and that this needs to be theorized" (p.133). She argues that this is important because "without

understanding, as a profession, what it is that we do, and why we do it, we will be subject to the enthusiasms and counter-enthusiasm of groups of therapists/academics owning different understandings of practice” (Beecham, 2004, p.133). In addition, the knowledge generated through *reflection in and on* practice is information that is important to share explicitly with less experienced practitioners; doing so serves as a potential contributor to effective decision-making in practice (Dollaghan, 2007; Titchen & Ersser, 2001; van der Gaag & Anderson, 2005). Finally, attending to the significance of and making explicit the various forms of professional knowledge that inform clinical decision-making is important for interprofessional collaboration in that it enables communication amongst team members relative to the rationale for pursuing actions to meet the client’s needs (van der Gaag & Anderson, 2005).

In sum, reflective practice has the potential to contribute to not only the individual practitioner’s repertoire of knowledge relevant to practice, but to the profession. Indeed, if information gleaned from reflection is made explicit and considered collectively, it has the capacity to generate disciplinary knowledge that can continually serve the profession of Speech-Language Pathology. The knowledge generated through practice is also suggested to be of importance to efforts toward interprofessional collaboration in the context of clinical service provision.

5.1.3.2 Balancing and Contextualizing Science with Patient Care.

In writing about the crisis of care in the helping profession, Swaby-Ellis (1994 p. 94), a paediatrician, writes that: “[b]alancing the responsibilities of effectiveness, efficiency, and empathy will never be an easy task.” In the same vein, Beecham (2005) reminds us that the Speech-Language Pathology profession faces diverse challenges from dual commitments of being a scientifically-based profession, as well as a helping one. As outlined in the Canadian Association of Speech-Language Pathology and Audiology (CASLPA, 2005) code of ethics, on one hand, SLP practitioners strive for high standards by providing professional services and information that is supported through current scientific and professional research. On the other hand, however, they hold in esteem the

values of caring and respect in their daily professional practice (CASLPA, 2005); thus, SLP practitioners place importance upon building a positive helping relationship within the clinical encounter (Beecham, 2004). Given the dual commitments as a 'scientist' profession and a 'helping' profession, balancing sound discipline-specific knowledge with the capacity to manage the contextual and interpersonal aspects of clinical service provision is required for effective day-to-day Speech-Language Pathology practice (Hinckley, 2010). Nonetheless, coursework and clinical education in Speech-Language Pathology has not always reflected both commitments. Historically, the focus on discipline-specific knowledge about normal and disordered speech, language, voice, and communication processes has resulted in little information being shared about the special characteristics and processes of working with individuals with communication disorders and their families (Shahmoon-Shanok & Geller, 2009). Within the discipline-specific education and clinical training of SLPs, knowledge that is more relational, reflective and experiential in nature has typically not been directly addressed (Beecham, 2004; Cruice, 2005; McAllister, 2005; Shahmoon-Shanok & Geller, 2009). According to Beecham (2004) an emphasis on rules and the application of procedures derived from disciplined-specific knowledge can result in a narrowed and somewhat circular gaze by the practitioner on the nature of a person's communication disorder. This gaze that may not permit the practitioner to appreciate and balance the helping relationship formed between practitioner and a client and the measurable symptoms of communicative breakdowns exhibited by this client – both of which underlie the Speech-Language Pathology clinical encounter (Beecham, 2004; 2005).

Several authors, such as Taylor (2008), have begun to emphasize that a caring and empathetic practitioner responds effectively to the interpersonal needs of their clients and family. Reflective practice and the learning that occurs through reflective processes has the potential to allow practitioners to attend to such affective and relational dimensions that frequently occur in clinical encounters and to develop a repertoire of appropriate ways to respond to challenging

interpersonal situations. In the midst of delicate interpersonal interactions, the interpersonal knowledge base derived from reflection on the therapeutic relationship can contribute to the artfulness of selecting appropriate attitudes, tone, and words. Taylor (2008) suggests that such reflective responses can reduce practitioner and patient anxiety, allow for the sharing of critical information, and support clients in feeling that they are cared for as individuals. Indeed, reflective practice encourages practitioners to continually learn through reflection on their relational encounters in practice. This would include those related to affective, emotional, and inter-subjective domains of one's practice, as well as those of more traditional domains such as speech, language, and general communication processes. In this way reflective practice may contribute to a more holistic, individualized, and flexible approach to care, and in doing so, assist practitioners to engage in a reflective dialogue with the patient and his/her family members to foster improved communication.

In sum, effective Speech-Language Pathology practice can potentially be strengthened by blending several types of knowledge. Bringing together scientific knowledge with knowledge derived from reflection on the care of the client, mitigates the risk of practitioners applying an approach that does not fit the unique needs of clients. This issue is of current relevance as the Speech-Language Pathology profession gives more attention to the 'clinicians' effects' such as their ability to create therapeutic alliances with clients (e.g., Bernstein Ratner, 2005; Manning, 2010), and to person-centeredness in determining outcomes of intervention (e.g., DiLollo & Favreau, 2010; O'Halloran, Hersh, Laplante-Lévesque, & Worrall, 2010). Reflective practice offers the practitioner the potential to consider the unique relational, contextual, and emotional needs of the client and family while simultaneously seeking to balance and contextualize these concerns with the scientific approaches to practice.

5.1.3.3 Integrating Theory and Practice.

Students and clinicians often perceive a lack of coherence between the theoretical knowledge they learn as part of their professional education and what

is expected from them in practice (Carozza, 2011). This has classically been described as the *theory-practice gap* (Allmark, 1995). This gap has been widely documented and referred to, most notably in the nursing professional education literature (e.g., de Swardt, du Toit, & Botha, 2012; Gallagher, 2004; Hatlevik, 2012; Rafferty, Allcock, & Lathlean, 1996). In Speech-Language Pathology, Ferguson (2007) has identified the theory-practice gap as one of the most prevalent challenges for professional education. The transfer of theoretical knowledge to a workplace setting is not a straightforward undertaking, in part because of differences in context, cultures and modes of learning (Eraut, 1994), and in another, because of the different forms of knowledge required for professional practice (Higgs et al., 2001). This gap is also confounded by the reality that no two patients are the same and that the most advanced clinical service requires the ability to adapt, adjust, and seize emergent therapeutic opportunities when they occur.

An underlying assumption of the theory-practice gap is that theory⁵ can be transferred into practice in a straightforward manner. More directly, this underlying premise assumes that the language of abstract theoretical knowledge articulates precisely with that of clinical experience (Gallagher, 2004; Rafferty et al., 1996). Such a view, however underestimates the dynamic and contextually-bound nature of practice situations. While effective practice needs to be informed by formal theory, the complex and ever changing nature of practice also necessitates the development and understanding of other kinds of theories relevant for professional practice (Eraut, 1994; Higgs et al., 2001; Kinsella, 2007). For instance, through reflective practice, practitioners develop theories of action (Argyris & Schön, 1992), or private theories (Eraut, 1994), those derived from lived experience that can then inform professional practice.

⁵ For the purpose of this article, 'theory' is referred to as 'theoretical knowledge' which can be found in textbooks and which is typically taught through formal education activities.

Argyris and Schön (1992) have suggested that professional effectiveness involves practitioner theories of action, which are comprised of what they refer to as *theories-in-use* and *espoused theories*. They contend that the theories-in-use which practitioners use in everyday practice are revealed in practitioners' actions and behaviours - for the most part, these are tacit and unconscious. Espoused theories, on the other hand, are more explicit and represent what practitioners' say about what they believe about practice; they represent the conscious theories that practitioners hold.

Both theories-in-use and espoused theories may be seen to correspond with what Eraut has referred to as "private theories" (1994, p.59). Eraut (1994) contrasts "private theories", or "ideas in people's minds which they use to interpret or explain experience" (p.59), with "publicly available theories" or "systems of ideas published in books, discussed in class and accompanied by a critical literature which expands, interprets and challenges their meaning and their validity." (p.59). According to Eraut (1994), putting public theories into use involves an interpretive effort that gives them a contextual and specific meaning; that is, it involves a process of theorizing on the part of the practitioner. This process of theorizing involves the practitioner reviewing, through reflection, his or her private theories in a dialectical manner with publicly available theories (Eraut, 1994). From this perspective, the reflective practitioner is viewed as a theorist of his/her own practice. This further posits reflective practice as an important vehicle through which publicly available theories are mediated through practitioner's private theories to shape action in professional practice.

Along similar lines, Hatlevik (2012) noted that reflective skills act as a mediator between one's practical skills and theoretical knowledge, thus, contributing to practitioners' perception of coherence between the two. Similarly, de Swardt et al. (2012) noted that guided reflection appeared to assist in clarifying theoretical and practical experiences and subsequently facilitate understanding of the connection between the two. In sum, by serving as a mediating vehicle between abstract theory and the particulars of unique clinical situations, reflective practice has the

potential to facilitate integration between both the theoretical and practical components of clinical experiences and ultimately contribute to the development of professional expertise (Benner, Tanner, & Chesla, 2009; Dreyfus & Dreyfus, 1986a).

5.1.3.4 Linking Evidence-Based Practice and Clinical Expertise.

For over two decades, the evidence-based practice movement has devoted considerable effort to making research evidence accessible, available, and transferrable to clinical practitioners. Recently, a greater emphasis has been placed on the need to integrate practitioners' clinical expertise with research evidence (Graham et al., 2006; Greenhalgh & Wieringa, 2011). In Speech-Language Pathology, Roulstone (2011) has argued that research evidence and expertise are both required for evidence-based practice to occur. Reflective practice is essential in the development of expertise (Benner, 2001) and, therefore, may have direct implications for SLPs in fostering the judicious use of research evidence.

Originating from a group of physicians and medical educators at McMaster University, the evidence-based practice movement arose from the need for physicians to easily access evidence for clinical decisions while caring for patients (Evidence-Based Medicine Working Group, 1992; Sackett & Rosenberg, 1995). Evidence-based health care was originally defined by its proponents as "the conscientious, explicit, and judicious use of current best external evidence [i.e., from systematic research/clinically relevant research] in making decisions about the care of individual patients" (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996, p.71). A systematic approach to evidence-based care was articulated along the following lines: (1) transform information need into a question, (2) search relevant information, (3) critically appraise the information found, (4) apply the findings of the search, and (5) evaluate and assess the outcomes (Sackett, Straus, Richardson, Rosenberg, & Haynes, 2000). A later description of evidence-based care integrated the best external evidence together with individual clinical expertise and consideration of patients'

preferences and values (Guyatt, Meade, Jaeschke, Cook, & Haynes, 2000; Sackett et al., 2000).

In practice however, this new description notwithstanding, the emphasis in “evidence-based” approaches remains primarily on scientific research evidence that focuses on levels of evidence, research literacy, and the critical appraisal of scientific literature. Yet as Sackett, one of the originators of the term points out, “even excellent external evidence may be inapplicable to or inappropriate for an individual patient” (Sackett et al., 2000, p.72). In the context of Speech-Language Pathology, a primary focus on external evidence without reflection in and on practice might be seen to entail risks. In this vein, Dollaghan (2007) contends that the emphasis on scientific or external evidence has overshadowed the consideration of clinical expertise. And Sackett et al. (1996), himself, the originator of the term has cautioned that “neither alone is enough” (p.72). Without the acknowledgment of the current best evidence “practice risks becoming rapidly out of date”, and without clinical expertise “practice risks becoming tyrannized by external research evidence” (Sackett, 1996, p.72). A lack of balance between evidence and reflection on clinical experience (which informs clinical expertise) has the potential to result in ineffective and inappropriate care for patients.

Sackett et al. (1996) state that “[e]xternal clinical evidence can inform, but never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into clinical decisions” (p.72). This point is consistent with the rigour versus relevance dilemma which Schön (1983) notes practitioners face in their everyday work lives. Should practitioners rigorously apply external evidence in practice, even when it appears not to be working, or should they be concerned with relevant and useful actions in context, by reflecting on the situation in order to respond in creative and in relevant ways? Despite the emphasis by Sackett et al. (1996), Dollaghan (2007) and others (e.g., P. Benner, 2001; Schön, 1987) on incorporating clinical expertise into evidence-based

decision making, this dimension of the evidence-based care movement, has received little attention in the literature to date in Speech-Language Pathology.

In terms of discussions relating to clinical expertise, both Benner (2001) and Schön (1987) point out that practitioners require a capacity for reflection in order to develop their clinical expertise. Through such reflective effort, clinicians enhance their ability to respond in relevant ways in the midst of complex professional practices. The capacity to engage in reflection can contribute to SLP practitioners' professional expertise, inform their capacities to integrate external evidence into practice and respond to the complexities of practice and the needs of the clients. As a consequence of these actions, reflection may then serve to assist practitioners in negotiating the indeterminate zones of practice for which no clear trajectory of evidence based outcomes exist (Dreyfus & Dreyfus, 1986b; Mamede, Schmidt, & Penaforte, 2008; Moulton, Regehr, Mylopoulos, & MacRae, 2007; Schön, 1987).

5.1.3.5 Cultivating Ethical Practice.

Reflective practice also has a role to play in the cultivation of ethical practice in Speech-Language Pathology. Ethical practice has been defined as 'conscious consideration' of daily activities that enable practitioners to identify the values that lead to their decisions and further actions (Chabon & Morris, 2005). Ethical questions and opportunities for reflection about them occur in speech-language pathology practice on an everyday basis (Chabon & Morris, 2005; Stewart, 2007). Therapists often reflect on questions such as: "What should I do?", "What is the right thing to do?", "Is this fair?". Unfortunately, choosing the 'right thing' or the 'fair thing' to do is not always easily achievable. Ethical codes of conduct (CASLPA, 2005) can provide guidance to help solve ethical issues, though such codes cannot and do not provide specific guidance for those 'grey' or complex ethical issues that occur in everyday practice (Eadie & Charland, 2005). Eadie and Charland (2005) state that "ethical decisions require consideration of a number of factors" and that "speech-language pathologists must not only follow their professional codes of ethics, but they must look beyond the rules and

regulations and identify ethical elements within daily practice” (p.27). Ethical situations in clinical practice are complex and involve many layers which the process of reflection can presumably help to unveil.

According to Chabon and Morris (2005) and Stewart (2007), an ethically guided practice consists of one in which consideration is given to the values at stake in decision making and professional judgment. Reflection has been depicted as a means for the practitioner to become aware of distortions and errors in assumptions, and to uncover the values, interests, and normative standards that underpin them (Brookfield, 1990; 1995; Kinsella, 2001). Confronting unsettling situations that provoke discomfort in practice are recognized as an opportunity for reflection and ethical exploration (Chabon & Morris, 2005; Kinsella, Park, Appiagyei, Chang, & Chow, 2008; Nisker, 2004). Thus, reflection may be seen as being essential to the cultivation of ethically guided practice (Chabon & Morris, 2005; Stewart, 2007). In contrast, missed opportunities to reflect on these dimensions may result in decreased awareness of practitioner values and assumptions and how these will shape practice. This failure can also lead to misreading of ethical issues or miscalculations in ethical judgments and may then prevent practitioners from adequately thinking about and justifying their decisions and actions (Chabon & Morris, 2005). Reflection is, therefore, a critical action that will inform practice and permit ethical decisions to be made within each given clinical encounter.

In summary, the cultivation of an ethically guided clinical practice requires a reflective approach that involves, but is not limited to, the ability to examine one’s personal values and beliefs and subsequently assess how they impact one’s actions in the workplace (van der Gaag & Mowles, 2005). Further, reflection provides an intrinsic resource for the practitioner to develop their capacity to understand particular contexts and relationships and the ethical issues that may arise from them (Eadie & Charland, 2005). Consequently, a reflective approach not only offers the potential for practitioners to identify the values that guide their decisions in practice, but also to inform their capacity for ethical reasoning and

decision-making in everyday Speech-Language Pathology practice (Chabon, Morris, & Lemoncello, 2011; Kenny, Lincoln, & Balandin, 2007; 2010).

5.1.4 Conclusion

Reflective practice is a theory that attends to the centrality of practitioner experience in the generation of knowledge that is directly relevant to clinical practice. Although reflective practice has become recognized as an essential dimension in the development of professional expertise, and while research on it is beginning to emerge in other health care professions, it has yet to be integrated into the literature in any meaningful way in the field of Speech-Language Pathology. In this paper multiple elements of reflection have been considered and we have argued for the relevance and importance of reflective practice to contemporary Speech-Language Pathology practice. It is proposed that reflective practice is important for both Speech-Language Pathology practitioners and for the profession. Reflective practice offers a rich opportunity for learning in professional practice, as well as for developing knowledge that is essential for effective practice. In particular, it was argued that reflective practice has the potential to generate professional knowledge, balance and contextualize science with patient care, facilitate the integration of theory and practice, link evidence-based practice with expertise, and contribute to the cultivation of ethical practice. Reflective practice is about more than merely engaging in reflection. Although further research is warranted, it is clear that reflective practice provides a rich framework that has the potential to advance professional education and practice in Speech-Language Pathology in a number of ways with benefits to not only the practitioner, but those whom the profession serves.

5.1.5 References

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Chapter 6

6. Methods and methodology

“Methodology is the overarching approach to research and encompasses both philosophy and methods.” (Finlay, 2006, p.10)

The aim of the empirical work in this dissertation (See Chapter 7) was to advance understanding about how Speech-Language Pathologists (SLPs) engage in reflective practices, by inquiring into how SLPs use processes of reflection to develop knowledge relevant for practice in the context of head and neck cancer rehabilitation. The objective of this chapter is to describe the methodology and methods adopted for that study. In the first part, I consider the reflexive approach used. Next, I introduce the paradigm of inquiry, two theoretical perspectives, and the school of inquiry that informed the study, and highlight the rationale for their use. In the second part of this chapter, I describe the methods of the study, including the procedures used to collect the data, the design of the interview guide, the strategy for recruitment of participants, and the procedures for data analysis.

6.1 Part 1: Methodology

6.1.1 Reflexivity in research practice

Reflexivity can be defined as ‘methodological self-consciousness’ (Finlay, 2002). As a defining feature of contemporary qualitative research (Finlay, 2002), reflexivity rests upon many assumptions; a critical one being the central role of the researcher’s subjectivity in shaping the research process. Also pertaining to reflexivity is the idea of what has been termed “situatedness”, a consideration that ‘determines’ our understanding (Finlay, 2006 p.19). That is, two researchers studying the same phenomenon may interpret and understand it differently; such

that different stories may unfold. Reflexivity in research practice encompasses “continual evaluation of subjective responses, intersubjective dynamics, and the research process itself.” (Finlay, 2002, p. 532).

Those who argue for reflexivity, suggest that it is necessary because researchers do not enter a research setting as a *tabula rasa*. Researchers bring perspectives and experiences that shape them and further shape their ability to see the empirical worlds studied (Charmaz, 2008; see also Henwood & Pidgeon, 2003). For example, in this thesis, I situated myself with regard of my previous experiences and reflected on my beliefs and assumptions about this research in the form of a researcher statement in Chapter 1. Guillemin and Gillam (2004) argue that such attention to researcher’s situatedness and subjectivity as tools in the research process enhances the ethical integrity of the research. Finlay (2002) contends that these features also enhance the analysis and interpretation of the data, as well as the trustworthiness, transparency and accountability of the research.

Finlay (2002) discusses reflexivity as being best understood in multiple ways, depending on the aims and functions at stake and the research tradition. For this study, I chose to engage in reflexivity as a strategy to unearth some of my previous or unacknowledged assumptions, and for examining my emerging self-understanding and how it might be shaping my interpretation of the data, and my relationship to the research topic and the research participants. As argued by Finlay (2002), this more personal, experiential, and individual stance stands in opposition with ‘social critique’ or ‘discursive deconstruction’ variants of reflexivity, yet aligns closely with my interpretive values and assumptions.

6.1.1.1 Reflexive strategies.

Far from assuming to fully know myself and my own presuppositions, I made use of particular reflexive strategies to unearth some of my previous or unacknowledged assumptions throughout the research process. My goal was to try to see the world through the eyes of the participants and understand the logic

of their experience prior to interpreting their reflections through my own assumptions. I adopted this approach in order to avoid imposing concepts on my data or prejudging what was happening. This is much in the spirit of Strauss' (1987) methodological believing where he contends that "the researcher (...) should be playing the game of believing everything and believing nothing" (Strauss, 1987, p.29). In order to do so, I maintained a reflexive journal in which I recorded my experiences of the research process on an ongoing basis. This included my consideration of: feeling statements about the research (doubts, anxieties, and pleasures), reactions to participants' questions, comments or stories, and emerging awareness of any assumptions or biases. This is based on Richardson's (1994) approach of "writing as a method of inquiry"; more particularly on her suggestion to write personal notes in addition to field notes, methodological notes, and theoretical notes (p.525-526). Such writing was valuable, as suggested by Morrow (2005), for examining my emerging self-understanding and how it might be shaping my interpretation of the data, and my relationship to the research topic and the research participants. I also recorded how, why and when critical research decisions were made. This provided me the opportunity to consciously consider how methodological decisions affected the research process and product.

6.1.2 Paradigm of inquiry: The interpretive tradition

An interpretive paradigm of inquiry is an approach to studying social life that assigns a central place to the systematic process of meaningful understanding (*verstehen*) as a method of the social sciences (Schwandt, 2007). An interpretive approach assumes that meanings and understandings are as diverse as the many possible lenses through which research participants view and interpret the social world (Rubin & Rubin, 2012). The goal of the research undertaken from an interpretive perspective is to describe and to analyze particular events, processes or culture drawing on the perspective of the participants, in order to foster understanding of political, social, or cultural practices (Rubin & Rubin, 2012). More specifically, the task of the interpretive researcher is to elicit the research

participants' perspectives of their worlds, their work or the events they have experienced or observed and to deduce, through analysis, the underlying rules, definitions, or assumptions relative to these worlds, work, or events. According to Rubin and Rubin (2012), this involves being a respectful listener or observer of other people's worlds and recognizing that his or her own lens affects what is learned. An interpretive approach emphasizes not only the examination of a situation or a phenomenon from the perspective of the research participants, but also the importance of complexity (i.e., of examining situations in which many factors interact) and of context (i.e., time and circumstances).

Given its potential to illuminate different perspectives about the phenomenon of reflective practice, and given its suitability for the study of complex and contextually oriented phenomenon, an interpretive approach was chosen to guide the study.

6.1.3 Theoretical perspectives: Pragmatism & Symbolic Interactionism

Some theories and methodologies are historically related because they both are derived from the same discipline or school (Reeves, Albert, Kuper, & Hodges, 2008). This is the case for the perspectives of symbolic interactionism and pragmatism, and grounded theory, the school of inquiry chosen for this study and described in the following section. Although one of the basic tenets of grounded theory is that it does not draw on macro or micro theories at the outset (a priori) (Boychuk Duchscher & Morgan, 2004; Creswell, 2007; Rees & Monrouxe, 2010), its origin and development are nevertheless traced back to symbolic interactionism (Annells, 1996; Jeon, 2004; Milliken & Schreiber, 2001) and to a lesser extent to pragmatism (Benzies & Allen, 2001; Strauss, 1987). Therefore, the choice of symbolic interactionism and pragmatism to inform this study helps to make explicit the connection between these two theoretical perspectives and the school of inquiry of grounded theory (Rees & Monrouxe, 2010). The effort to understand the intellectual roots of grounded theory's school of inquiry was

deemed important to understanding the logic of the methodology, and the way in which it shapes the appropriate application and use of methods and research strategies during the research process (Charmaz, 2003a; Wimpenny & Gass, 2000). Given that the perspective of symbolic interactionism grows out of pragmatism (Charon & Hall, 2009), I will first briefly introduce the philosophical tradition of pragmatism, followed by the main tenets of symbolic interactionism.

6.1.3.1 Pragmatism.

Pragmatism is an American philosophical tradition that views reality as one that is actively constructed and open to multiple interpretations (Bryant & Charmaz, 2007; Mead, 1934; Oliver, 2012). Pragmatism assumes that individuals have the capacity to respond to their social world by engaging in reflection upon their own mental process rather than reacting without thought to a set of environmental stimuli (Jeon, 2004). In pragmatist philosophy, meanings emerge through practical actions oriented toward practical problems, and individuals come to know the world not only by recording facts, but also through who they are, and from what they do (Peirce, 1992; see also Oliver, 2012). Pragmatists reject universal notions of truth because they hold that individuals' perceptual frames shape the many possible understanding of reality; and thus all claims to knowledge are viewed as no more than partial, tentative and temporary (Peirce, 1992; see also Oliver, 2012). In essence, pragmatists "see facts and values as linked rather than separate and truth as relativistic and provisional." (Bryant & Charmaz, 2007, p.609).

A pragmatic perspective is consistent with an inductive mode of qualitative research design, and more specifically with the grounded theory school of inquiry proposed for my investigation into the reflective processes used by SLPs in HNC. Moreover, the pragmatists' idea that knowledge is regarded as that which is directly tied to practice (i.e., to what people do) and that the quest for knowledge always occurs in social, historical, political contexts (Cherryholmes, 1992; Creswell, 2007; Murphy & Rorty, 1990) is in line with my choice to study reflective practice which posits an epistemology of practice (knowledge generated from

practice) (Haywood, 2004; Kinsella, 2009; Schön, 1983). In addition, the writings of the pragmatist philosopher John Dewey significantly influenced the work of Donald Schön - the thinker and writer who developed the seminal theories of reflection and reflective practice related to professional practice (Kinsella, 2007, 2009). Dewey (1910), in line with other pragmatic philosophers, is concerned with processes of reflection and the implications for knowledge generation and practical action in the world. These commonalities may be seen to add another level of philosophical coherence to this research.

6.1.3.2 Symbolic Interactionism.

Symbolic interactionism is rooted in pragmatist philosophy and thus shares the fundamental principles presented previously. Nevertheless, there are three important tenets of symbolic interactionism that reveal assumptions embedded in the theory. These are: 1) human beings act toward things on the basis of the meanings that things have for them; 2) the meanings of things are the product of social interaction; and 3) meanings change when self reflective individuals symbolically interact with each other (Blumer, 1969; Denzin, 1992). These classic tenets of symbolic interactionism are based on the belief that human beings are active and creative individuals interacting in a mutual process with their social context, they assume that meaning is created in relation to what has been experienced (Benzies & Allen, 2001; Reynolds & Herman-Kinney, 2003). Symbolic interactionists hold that the world exists separate and apart from the individual's perception of it, but also that the individuals' perception and interpretation of this world influences their behaviour(s). From a symbolic interactionist perspective, truth is tentative and never absolute because meaning changes according to individual contexts.

Such an approach provides a foundation for studying how individuals interpret objects, situations, and other people in their lives; how this process of interpretation leads to behaviour in specific situations; and how social interactions have the potential to create, maintain or modify meaning. The symbolic interactionist perspective emphasizes the importance of becoming familiar with

the phenomenon under study and respecting research subjects and their interpretive worlds (Blumer, 1969; Charmaz, 2008). Equally important is symbolic interactionism's emphasis on working toward understanding the 'world' of the subject as seen by that subject. This emphasis on attempting to understand the subject's viewpoint calls for the use of data collection techniques such as intensive in-depth interviews (Charmaz, 2006; Strauss, 1987), and researcher reflexivity; both of which were used in this research.

Both pragmatism and symbolic interactionism informed the design and conduct of this study and guided the following methodological choices: a) the use of semi-structured and multi-sequential interviews with open-ended questions as data collection methods and b) the particular questions that were asked and the use of critical incidents in the interview guide to elicit thick description of actions in context. In addition, they were seen to inform the congruence of my philosophical and theoretical perspectives with the methodological choice of grounded theory. Indeed, pragmatism and symbolic interactionism relate to grounded theory's "open-ended emphasis on process, meaning, action, and usefulness" (Charmaz, 2003a, p.314) which is discussed next.

6.1.4 School of Inquiry: Grounded Theory

Grounded Theory is a systematic and inductive research process for developing middle range theories about social and socio-psychological processes (Charmaz, 2003b; 2006). Through a process of constant comparison and data reduction, the resulting theory is 'grounded in the data' (i.e., developed from well-defined concepts arising directly from the social reality of the people studied) (Charmaz, 2003b). It is particularly well suited when little is known about a subject (Stern, 1980), and when studying processes (Creswell, 2007) such as the SLPs' use of reflective processes in the current study.

There are important variants of grounded theory that modify to some extent the practices and products of the research process (Charmaz, 2000). Two different forms are objectivist (Glaser, & Strauss, 1967; Glaser, 1978; Strauss & Corbin,

1990) and constructivist (Charmaz, 2000) grounded theory. From the objectivist approach, a single answer to the research question is seen to be discovered. This is separate from the researcher, and occurs through objective and systematic measuring and counting in a 'given' or external social world (Charmaz, 2003b). From this perspective, the theory developed is seen to offer an "exact picture" of the processes studied (Charmaz, 2006, p.10) and to explain the phenomenon in terms of cause and effect. In contrast, from the constructivist approach, answers are constructed from participants' experiential views and implicit meanings of their experiences as members of a social world (Charmaz, 2003b). The researcher is part of this 'accomplished' social world, which he/she researches through observing, questioning, and describing a phenomenon, gaining multiple views of it, and locating it in its web of connections and constraints (Bryant & Charmaz, 2007). According to Charmaz (2003a), a constructivist approach "takes implicit meanings, experiential views, and grounded theory analysis as constructions of reality." (p.314). The researcher conducting a grounded theory study from a constructivist approach aims to elicit research participants' implicit meanings of, and experiences with, the phenomenon of interest, in order to build a conceptual theory. The theory developed offers more of an "interpretive portrayal of the studied world" rather than a picture (Charmaz, 2006, p.10) and seeks to understand the studied social phenomenon in terms of meaning. Charmaz's (2006) constructivist grounded theory was used in this study to inductively develop a theory about how Speech-Language Pathologists' (SLPs) use processes of reflection within their professional practices in the context of head and neck cancer rehabilitation.

6.2 Part 2: Methods

This section provides details of the methods used for this study including: the procedures used to collect the data, the design of the interview guide, the strategies for recruiting the participants, and the procedures for data analysis.

6.2.1 Data collection: Semi-structured interview

Semi-structured interview was the approach adopted for data collection. It is considered one of the best means for eliciting participants' major concerns or point of view, and is commonly utilized in grounded theory studies (Charmaz, 2003a; Wimpenny & Gass, 2000). The structure of a semi-structured format offers an outline that ensures researchers cover important topics pertaining to the studied phenomenon that can contribute to the development of theoretical insights (Kvale & Brinkmann, 2008). A semi-structured interview also affords flexibility in that it leaves freedom to pursue ideas and issues emerging during the interview (Kvale & Brinkmann, 2008). Discerning interesting leads is important in constructivist grounded theory research as such leads may shape subsequent data collection and be useful in refining the analysis, thus contributing to a powerful theoretical rendering of the empirical phenomenon (Charmaz, 2003a, p.318). It may assist in gaining depth, detail and resonance about participants' experience, in order to construct a dense and complex analysis, a powerful theoretical rendering, and refinement of theoretical insights (Charmaz, 2003a, p.318).

6.2.2 Design of the interview guide

The semi-structured interview guide was designed to facilitate in-depth interviews with participants and is presented in Appendix A. While there is no 'typical' grounded theory interview (Wimpenny & Gass, 2000), Charmaz (2006) stresses the importance of carefully developing the interview questions to elicit rich details of the social processes and issues being studied. Careful attention was thus devoted to the design of the interview guide in order to obtain rich and useful data as a solid foundation for theoretical development (Charmaz, 2003a).

The interview guide was developed through an iterative process that included: a review of the literature, pilot testing with 6 health professional practitioners, and consultation with 2 experts in reflective practice. The classic literature on reflective practice assisted in mapping the important concepts underlying the

interview. Brainstorming of potential questions and pilot-testing of these questions resulted in questions designed to obtain rich material while avoiding the imposition of preconceived concepts on the material gathered.

The interview guide was divided in three sections, with a total of 17 questions. A significant portion of the interview involved collecting details about five critical incidents experienced by participants, followed by discussion with participants' about the reflective processes involved, and the development of professional knowledge. Critical incidents are events, activities or behaviours which affected the outcomes of a situation or process and are significant and memorable to the research participants (Norman, Redfern, Tomalin, & Oliver, 1992; Schluter, Seaton, & Chaboyer, 2008). Critical incidents were gathered by asking participants to tell a story about various clinical experiences. The approach was based on the critical incident technique developed by Flanagan (1954) and used by Benner (2001) in her seminal work on expert knowledge. This approach was chosen because storytelling (or narratives) engages research participants in re-experiencing the clinical moment, while adopting a reflective stance, thus allowing for rich commentary to flow (Bolton, 2010). Additional interview questions were asked to elicit information about research participants' views of reflection and professional knowledge. Metaphors of the ways reflection contributes to generate relevant knowledge for working in HNC were also explicitly sought from the participants in order to (a) gain additional information about their views of such complex and abstract phenomenon and (b) connect the data with developing theoretical insights (Carpenter, 2008; Miles & Huberman, 1994).

The interview guide was used over two interview sessions. In addition to participants' responses to the interview questions, their demographic and work information was recorded. The initial interview usually took about 60 minutes, and the questions not completed in the initial interview were completed in the second interview which usually took less than an hour. Interviews were conducted with each participant either by phone, Skype or in person.

6.2.3 Recruitment strategies

Participants were purposefully selected. They were selected according to their suitability to respond to the research question and purpose, rather than according to their representativeness of some wider population units (Schwandt, 2007; Tuckett, 2004). Research participants were required to be active in clinical practice, to work with individuals who have head and neck cancer, and to be willing to share their insights with the researchers. More specifically, the criteria for inclusion in this study were: SLPs active in clinical practice working with individuals with head and neck cancer; Participants must have a minimum of 1 year of experience as a SLP; Participants must have a caseload of at least 20% of individuals with head and neck cancer; Participants must be practicing in the North American context. Potential participants were excluded from this study if they did not meet the inclusion criteria listed above or those individuals who could not communicate in English. Recruitment occurred mainly through the International Association of Laryngectomees (IAL) and also through ENT/HNC programs and clinics from Southern Ontario. Two key informants, one from IAL and one from the Speech-Language Pathology community in Southern Ontario, assisted with the recruitment process by forwarding the letter of intent for the study and an invitation to participate to potential SLPs participants. Interested participants were then contacted by the student-researcher. Consistent with recommended initial sample sizes for grounded theory (Cooper & Endacott, 2007; Kuzel, 1999; Morse, 2000; Patton, 2002), 12 SLPs working in head and neck cancer rehabilitation were recruited and consented to participate. This protocol was authorized by Western University's Research Ethics Boards (REB) (see approval form in Appendix E).

6.2.4 Data management and analysis

6.2.4.1 Data management.

All interviews were audio-recorded and transcribed verbatim. During this process, all names and identifiers were removed. Participants' full names and contact information were recorded in a master list – the master list and the data files were linked via a code number. Identifiers were retained separately from data files and were password protected/encrypted and filed in *secure cabinet*. The only people with access to any identifying material were the principal investigator and the student-researcher. For dissemination and publication purposes, only quotes that are non-identifying are used to represent the data.

6.2.4.2 Data analysis.

An iterative process of data analysis was undertaken following the analysis methods of grounded theory which included: line-by-line coding (initial coding), focused and theoretical coding, and constant comparative analysis, and memoing. Grounded theory's tenet of sensitizing⁶ (Blumer, 1969; see also Charmaz, 2006) and theoretical sensitivity⁷ (Glaser, 1978; see also Charmaz, 2006; Strauss, 1987; Strauss & Corbin, 1998) also shaped the analysis of the data. The process of data analysis is detailed and illustrated in Figure 2. The reader is reminded that much of the various phases of the analytic procedure described below occurred iteratively, that is simultaneously rather than in a linear fashion. In a similar vein, I concur with Harry, Sturges and Klingner (2005) who suggest that no model, diagram, figure or table can represent the intuitive leaps inherent of inductive analysis.

⁶ Empirical interests and disciplinary perspectives that give the investigators initial ideas to pursue and sensitize them to ask particular questions about their topic (Blumer, 1969; see also Charmaz, 2006).

⁷ Investigators' ability to use personal and professional experiences and the literature to see the research situation and data in new ways and to exploit the potential of the data for developing theory (Strauss & Corbin, 1998).

Interview transcripts were initially coded line by line as suggested by Charmaz (2006) for the **initial coding stage** (see Table 2). Initial codes were compared with one another through careful and constant comparison (Charmaz, 2006; Stern, 1980). **Constant comparative analysis** is a critical method of grounded theory that “generates successively more abstract concepts and theories through inductive processes of comparing data with data, data with category, and category with concept” (Charmaz, 2006, p.187). This process was assisted by a concept-mapping software tool (CMAP Tool). Concept mapping consisted of in organizing the initial codes from each transcript into a graphical map (Wheeldon & Ahlberg, 2012a, b) (see Figure 3). This visual organization provided a means for comparison and contrast between initial codes of the whole data set and assisted in moving the salient codes into conceptual categories. According to Charmaz (2006, p.121), “conceptual mapping” is a common analytical strategy in the grounded theory tradition. The principal author of this study made choices regarding initial codes that made the most analytical sense to categorize the data incisively and completely. As initial codes collapsed and connections between them were established, more general conceptual categories became apparent and were used for the next level of coding (i.e., **focused coding**). ATLAS.ti (version 7, 2013) computer software was used for focused coding (see Figure 4), and to manage and organize the data (see Figure 5). The nine main conceptual categories (see Figure 6) were constantly and carefully compared with the data in order to define their properties (see Table 2). Concepts that could not be supported by the data were dropped. New participants were brought into the study until “the point of diminishing return” (Bowen, 2008, p.140), that is when nothing new was being added to the data set as indicated by redundancy of information obtained (Bowen, 2008). At this point, the data collected were fitting into the categories already devised and the data set was considered complete.

Theoretical integration of the conceptual categories occurred, in part, simultaneously with focused coding. This is often the case at the **theoretical coding** stage (Glaser, 1978). This higher analytical stage was assisted by

drawing of diagrams to consider the relationships between the main conceptual categories (see Figure 7). Specifying the possible relationships between categories (see Figure 8) moved the analysis to a more theoretical level and contributed to the formation of a preliminary conceptual model (see Figure 9). Throughout this process of conceptualization, a core category (ongoing questioning) was identified that appeared to permeate all of the other conceptual categories identified. Once the core category was identified, the data were re-examined to determine the fit of the core category with the other categories. Refinements of conceptual categories also took place such as the renaming of the conceptual category “Taking ethical action” for “Discerning ethical issues”. Segments of data and the theoretical schemes were shared with the co-investigators and consensus was reached that the core category did indeed represent the overarching process identified in the data. As suggested by Charmaz (2006; see also Stern, 1980), a vital step in this analytical process is the writing of and eventual sorting of memos.

Interview statement	Line-by-line coding
<p><i>So when these types of complications come up again, which aren't the same but alike, I tell myself: "<u>Remember 'so and so'</u>, you didn't think it was gonna work but then we did it and it did and he's so happy. <u>So maybe we need to like look at this guy a little differently.</u>"</i></p> <p>(transcript 0401, p.5/15)</p>	<p>Remembering successes with past patients.</p> <p>Thinking differently about a patient.</p>
<p><i>Um (.) if a client comes in and you fit his prosthesis or whatever and they go home after you're done placing that prosthesis. And they call you back a day or two later and tell you they are having problems. Then you <u>look back and think: "I should have spent more time making sure it fit properly or he was able to talk okay"</u>— just thinking about what I might have missed and <u>making sure I don't miss that again.</u></i></p> <p>(transcript 1001, p.4/18)</p>	<p>Looking back and thinking what one should have done.</p> <p>"Making sure I don't I don't miss it again"</p>

Table 2: Initial coding: Examples of line-by-line coding of interview data

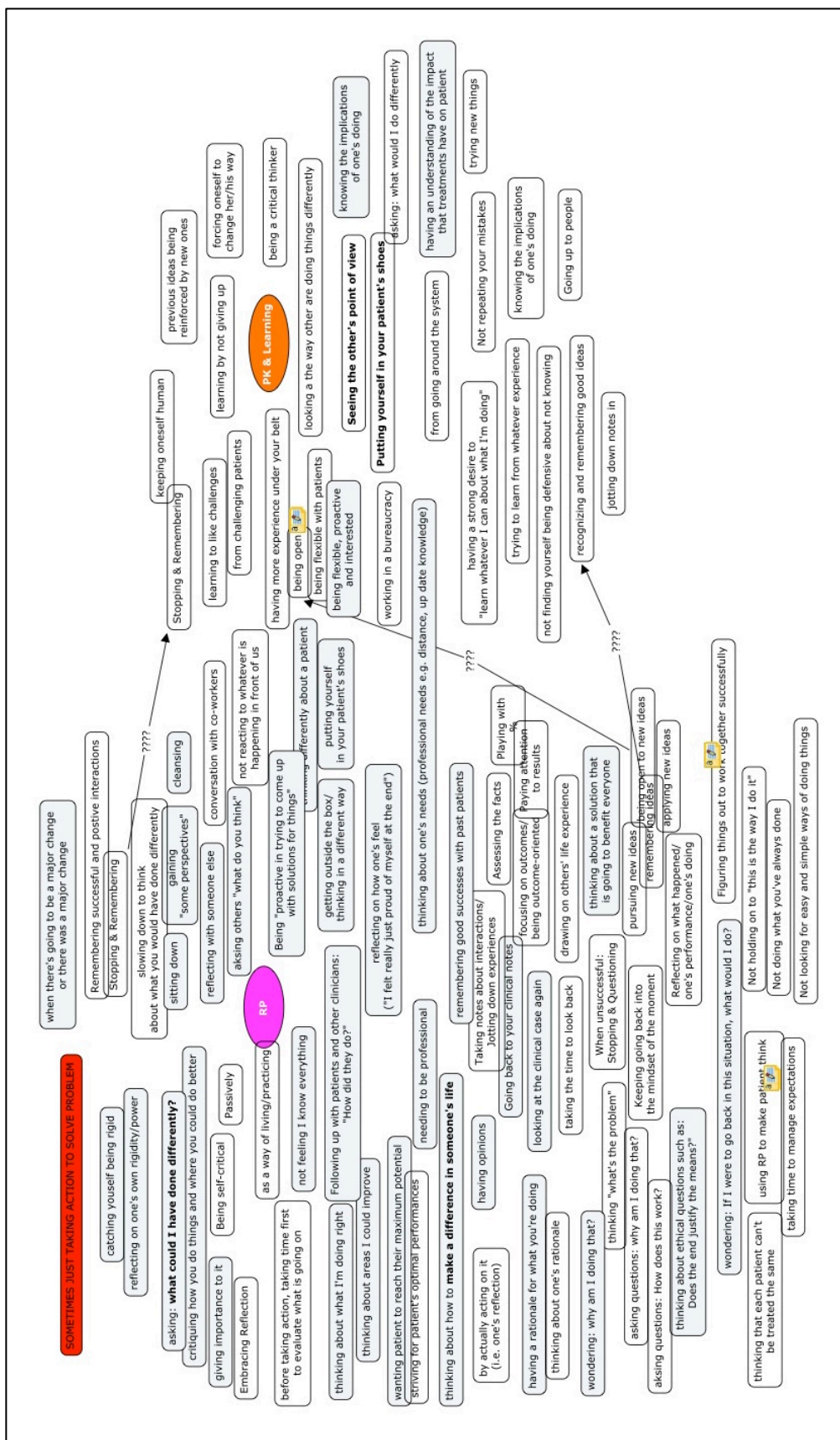


Figure 3: Concept map of initial codes: An example

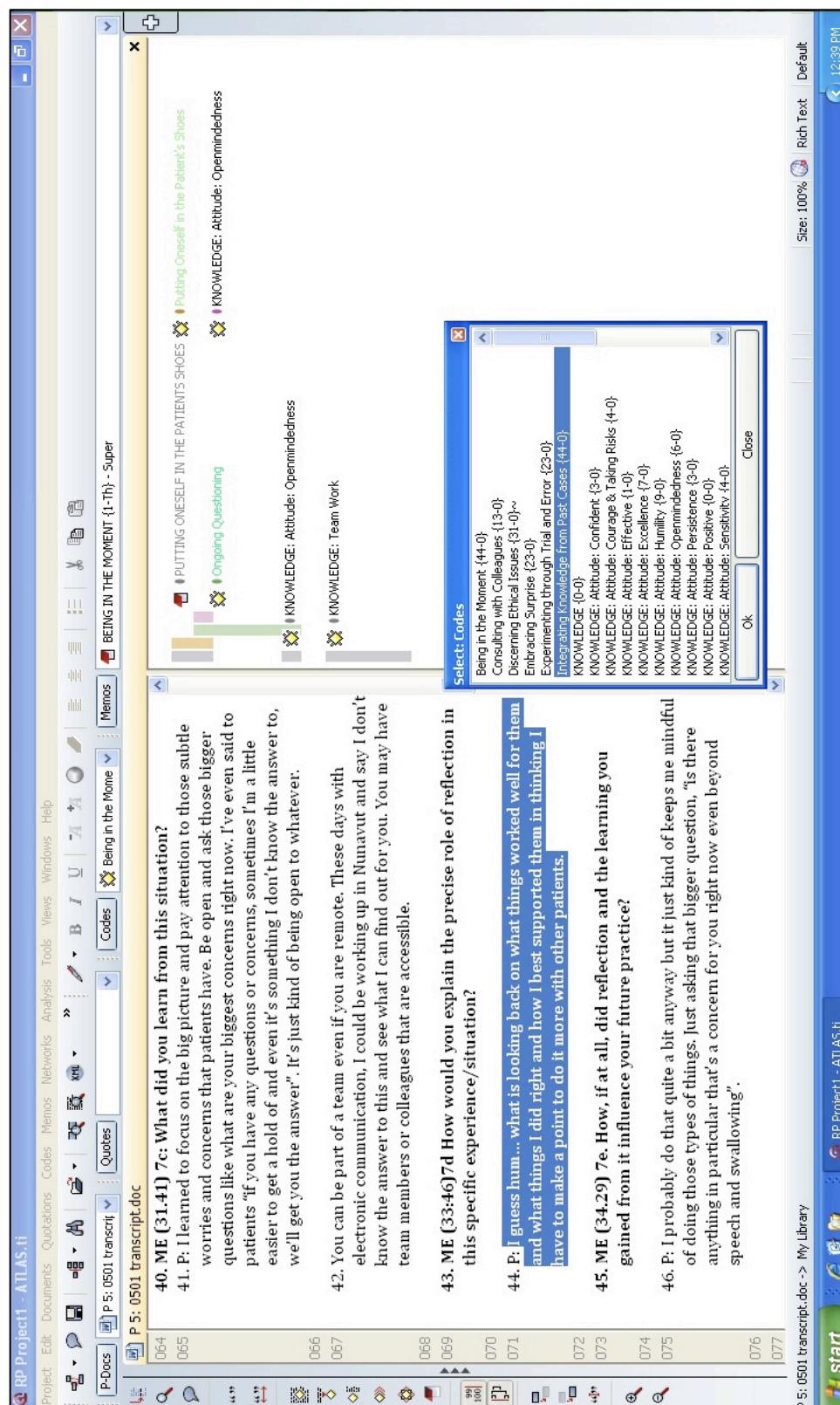


Figure 4: Focused coding: Screen in ATLAS

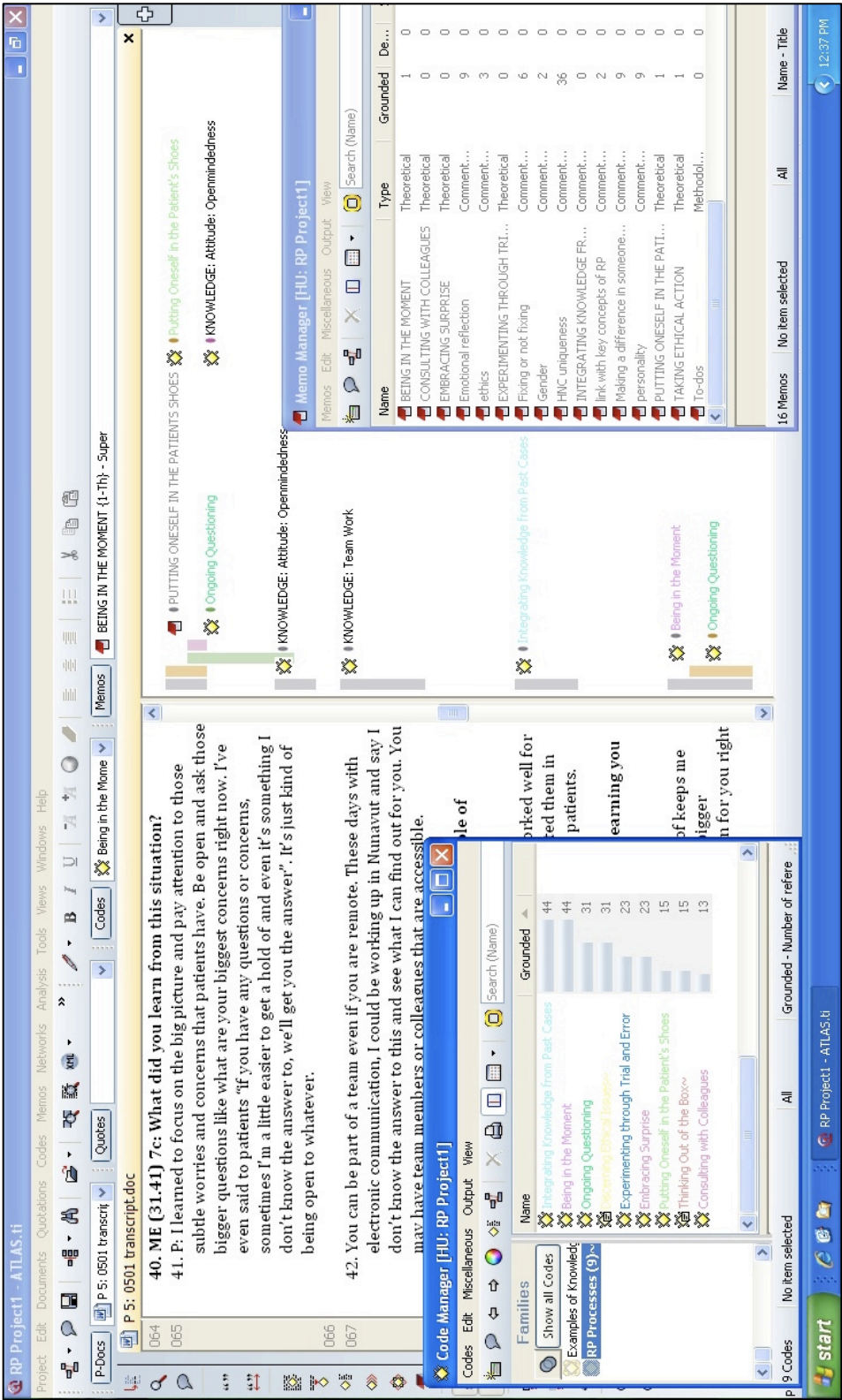


Figure 5: Data management and organization: Screen in ATLAS.ti 7



Figure 6: Focused coding: 9 conceptual categories

- 1. Ongoing Questioning:** Questioning before, during, and after; Intellectual curiosity; Ethical questions; Questioning the evidence: making sense, judgment, critical thinking; Asking questions and seeking answers.
- 2. Experimenting through Trial and Error:** Lack of research evidence; Applying research to practice; Problem-solving; Risk-taking; Confidence & Perseverance; Mistake, failure, feeling defeated; Trying things out; Intuition; Testing new ideas.
- 3. Integrating Knowledge from Past Cases:** Experience coming into play/Drawing on experience; Learning from every patient; Thinking about past to direct in the moment or for the future; Remembering/Recalling past cases; Provides guidance.
- 4. Embracing Surprise:** Involves emotions; Attending/Trusting one's gut reaction; Let go of one's expectations; Holding from fixing; Uniqueness of a situation, Being surprised.
- 5. Thinking Out of the Box:** About how one's looking at things; Looking differently, looking beyond; Thinking how one could do things differently.
- 6. Being in the Moment:** Mindfulness; Reflection-in-action; Listening; Open-mindedness; Awareness; Aware/Attuned to patient (active listening, reading non-verbal cues, tuning in to patient's feeling, responding to patient); Aware/Attuned to oneself (grounding oneself, lingering over one's choice of words and nonverbal expression, being present: conscious, focused, attentive, mindful); Managing one's anxiety; Self-monitoring; Let go of one's agenda.
- 7. Consulting with Colleagues:** Health Care Professionals (collaborative team approach, bouncing ideas/feelings off each other, asking for help, asking for another opinion; case/session discussion, comparing approaches, listening to others' experience); Patients (clarifying needs, getting feedback, managing expectations).
- 8. Putting Oneself in the Patient's Shoes:** Seeking holistic view of the patient; Looking beyond speech, language, and communication; Taking patient's perspective; Quality of life.
- 9. Discerning Ethical Issues:** Taking position/Speaking up; Advocating for the patient; Assertiveness; Informed-decision making; Common to other Speech-Language Pathology practices (liability, therapy discharge, standard of care, professional role and responsibility, reconciling patient preferences, resource access, professional boundaries, scope of practice); Unique to HNC (delegated act of inserting a voice prosthesis, decision regarding voice products).

Table 3: Conceptual categories' properties

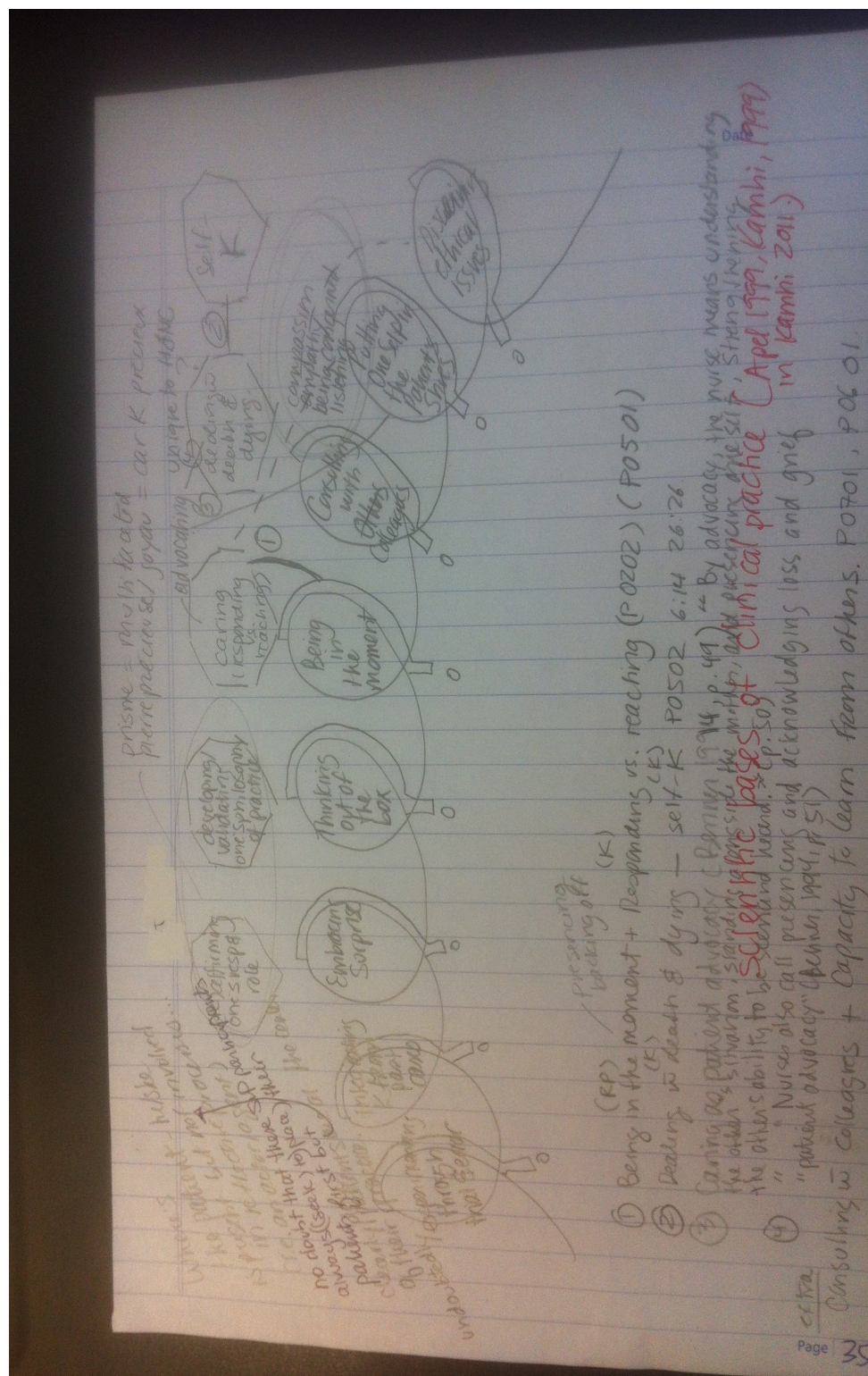


Figure 7: Diagramming

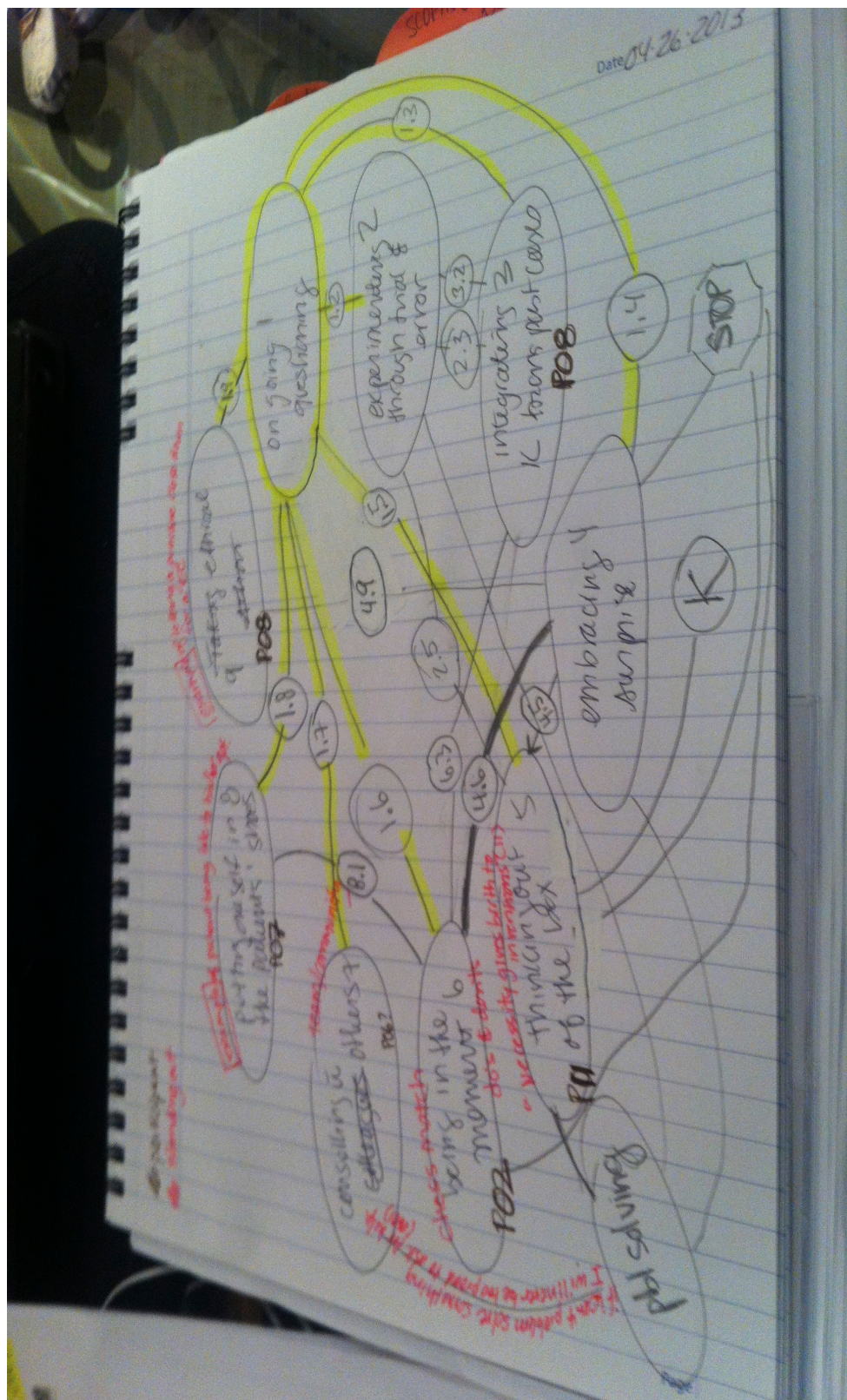


Figure 8: Theoretical coding

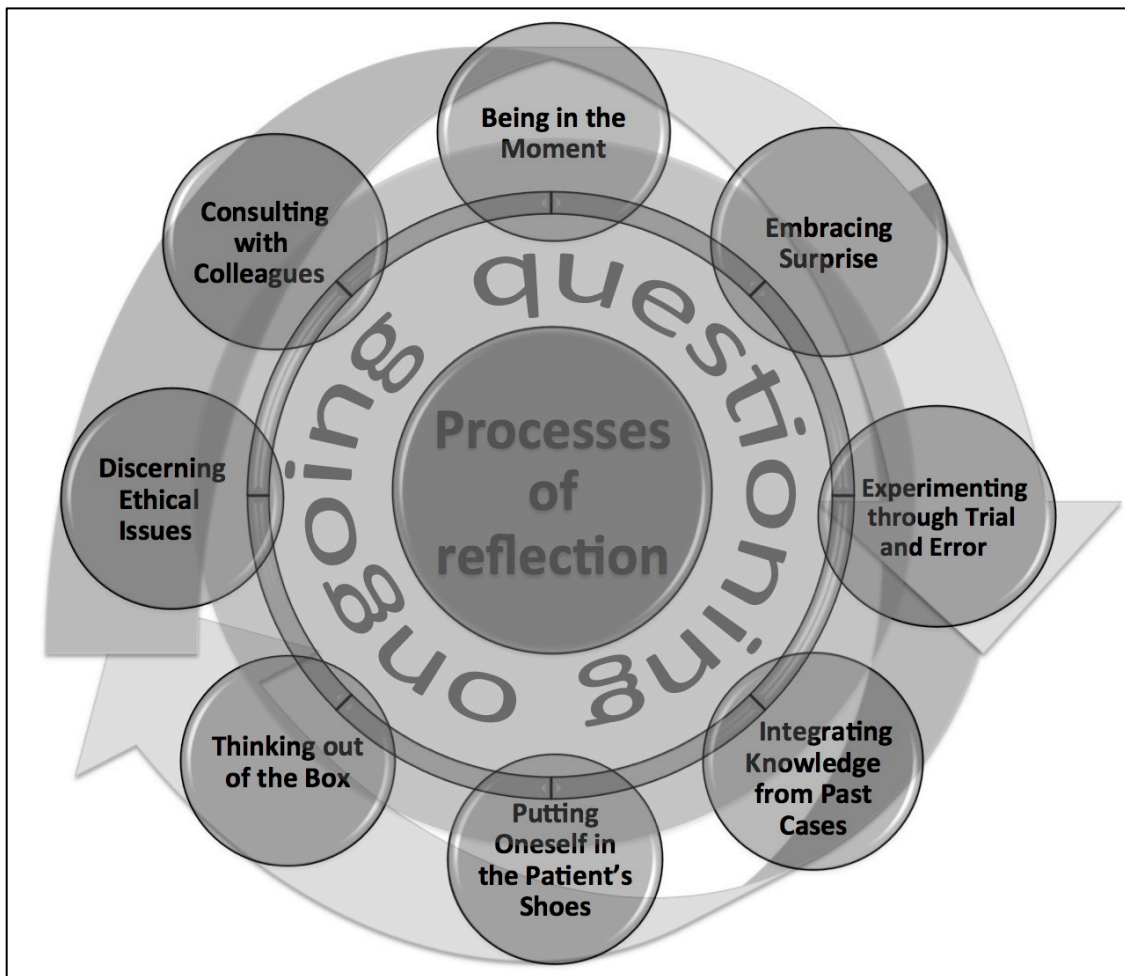


Figure 9: Preliminary conceptual model

Finally, in addition to the grounded theory methods, at the core of a constructivist approach to grounded theory, as argued by Charmaz (2006), is the researcher's engagement. This perspective brings the grounded theorist *into* the research process. As Charmaz (2006) states, the researcher stands "*within* the research process rather than above, before, or outside of it." (p.180). As she further contends: "[a] grounded theory journey relies on *interaction*- emanating from your worldview, standpoints, and situations, arising in the research sites, developing between you and your data, emerging with your ideas, then returning back to the field- or another field, and moving on to conversations with your discipline and substantive fields." (2006, p.179)

6.3 Conclusion

In this chapter an overview of the methodology and methods of the empirical aspect of the dissertation has been presented. The following chapter will present the findings as a manuscript.

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Chapter 7

7. Integrated Manuscript Five: Empirical Paper

A number of commentators have suggested that in addition to evidence-based practice, reflective practice is required for effective practice in the professions generally and in Speech-Language Pathology and the health professions specifically. Yet, little research has examined how SLPs and other healthcare practitioners actually engage in reflective practice. The present research aims to redress this gap.

The aim of this research is to advance understanding about how SLP practitioners engage in reflective practices. The following research question guided the study: How do experienced SLPs use processes of reflection to develop knowledge relevant for practice in the context of head and neck cancer rehabilitation? In-depth, semi-structured interviews were conducted with 12 Speech-Language Pathologists (SLPs) in the field of head and neck cancer rehabilitation. Grounded theory methodology was adopted for data collection and analysis.

The findings inform a preliminary reflective practice model that depicts the processes of reflection used by practitioners interviewed as part of this study. *Ongoing questioning* was found to be a broad and overarching category. In addition, eight categories of processes of reflection were identified: *experimenting through trial and error, integrating knowledge from past cases, embracing surprise, thinking out of the box, being in the moment, consulting with colleagues, putting oneself in the patients' shoes, and discerning ethical issues.*

These findings provide empirical evidence that supports Schön's theory of reflective practice and contribute to knowledge about *the ways* in which SLPs use processes of reflection in the context of head and neck cancer rehabilitation. In

addition, the findings suggest that processes of reflection may be seen to complement notions of artistry, and support contemporary calls for the development of practice-based evidence as a complement to evidence-based practice. Finally, the present findings suggest avenues for future attention to critical and dialogic dimensions of reflection for SLPs.

7.1 Reflective processes of practitioners in head and neck cancer rehabilitation: A grounded theory study

7.1.1 Introduction

Evidence-based practice (EBP) is a prevalent approach in health professional education and practice in current times. This is evidenced by the proliferation of courses that address evidence-based information literacy and research in both initial and continuing health professional education programs. Given the scientific information explosion and society's increasing demands for effective healthcare services, evidence-based practice skills are critical for competent practitioners. But is evidence-based practice (EBP) enough to sustain practitioners in their quest for effective professional practice?

A number of commentators have suggested that in addition to EBP, reflective practice is required for effective practice in the professions in general (Schön, 1983; 1987), and in Speech-Language Pathology (Enderby, 2004; Justice, 2010) and the health professions specifically (Bannigan & Moores, 2009; Greenhalgh, 2002; Kinsella, 2007a; Mantzoukas, 2008). Yet little research has examined how Speech-Language Pathologists (SLPs) and other health care professional practitioners actually engage in reflective practice in clinical practice. This research aims to redress this gap.

7.1.1.1 Brief statement of the problem.

In clinical practice SLPs are increasingly expected to engage in reflective practice

in order to fulfill their obligations as effective practitioners and as lifelong learners. For example, Canadian professional, regulatory, and educational organizations associated with the professions of Audiology and Speech-Language Pathology have recently created an updated inter-provincial standards for practice and education in the form of competency profiles (CAASPR, 2012). These profiles contain the performance expectations that will guide audiologists and SLPs in self-reflective practice and evaluation of ongoing professional development (CASLPA, 2008). However, while members of the profession of Speech-Language Pathology appears to have become increasingly aware of and interested in reflective practice, little empirical research into this approach has been conducted (Caty, Kinsella, & Doyle, accepted). Thus, reflective practice is currently being adopted in the context of a lack of empirical data about the actual reflective processes that are being utilized by practitioners. If reflective practice continues to be expected from health care practitioners in general, and SLPs in particular, there is a clear need to develop a better empirical understanding of the reflective processes involved, and to integrate this knowledge into the design of professional education, and continuing education programs for practitioners.

7.1.2 Reflective Practice

Reflective practice is concerned with ‘epistemologies of practice’ (Kinsella, 2010; Schön, 1983; 1987); that is, a process that permits development of knowledge through reflection “in” and “on” clinical practice. The term reflective practice was coined by Donald Schön in the mid-1980’s and is often depicted as a thought process based on active, persistent, and careful consideration about what one does in practice; it ultimately serves as a means through which individuals become more skillful and aware of the nature and impact of their clinical performance (Dewey, 1910; Osterman & Kottkamp, 1993; Schön, 1987). Although sometimes overlooked, reflective practice also considers tacit (Polanyi, 1967; Schön, 1983; 1987), or embodied forms of knowledge (Kinsella, 2007b), to have significant implications for successful clinical performance. Famously, Schön (1983, 1987) proposed the terms “reflection-in-action” and “reflection-on-

action” to illustrate the temporal nature of reflection in relation to the actions of practitioners, such that reflection is seen to occur retrospectively, or in the actual midst of action. Schön (1983, 1987) also coined the term “knowing-in-action” to illustrate the tacit ways in which practitioners know, and the ways in which their actions reveal knowledge beyond that which they can say.

Reflective practice is frequently noted as an essential attribute of competent clinical practice (Benner, 2001; Eraut, 1994; Mann, Gordon, & MacLeod, 2009). It is presumed to enable the development of clinical expertise (Benner, 2001), to contribute to the development of knowledge relevant for clinical practice (Kinsella, Caty, Ng, & Jenkins, 2012), to inform practitioners’ capacities to learn from professional experience (Boud, Keogh, & Walker, 1985; Moon, 2004), to inform healthcare delivery practices that are more sensitive to patient needs (Duggan, 2005), and to facilitate the uptake of evidence-based practices (Bannigan & Moores, 2009; Mantzoukas & Watkinson, 2008). Yet to date, little empirical research into the reflective processes that health care practitioners actually utilize in their professional lives has been undertaken. The current research sought to address this gap.

7.1.3 Reflective Practice and Evidence-Based Practice

Over the past decade, there has been an increased emphasis on, and call for, evidence-based practice (EBP) in the field of Speech-Language Pathology (Dollaghan, 2007; Reilly, 2004a, 2004b; Reilly, Douglas, & Oates, 2004).

However, some authors such as Enderby (2004) contend that EBP is not enough:

It is important that clinicians remember that they have to be reflective practitioners and whatever evidence they are using, i.e., published peer-reviewed papers, the experience of themselves and others, audit information, reports from user groups etc, are given the appropriate weight according to the question that is being asked. (p.125)

Reflective practice is postulated as a complement to EBP in that it assists clinicians when there is variation in practice, divergent clinical outcomes, and/or conflicting or no evidence (Beecham, 2004; Enderby, 2004). Reflective practice is

also conceptualized as complementary to EBP in fields beyond Speech-Language Pathology (Bannigan & Moores, 2009; Kinsella, 2007a; Mantzoukas, 2008). Nonetheless, the relationship between reflective practice and EBP, and how the two approaches contribute to the cultivation of professional knowledge has yet to be satisfactorily elucidated. In other words, much remains to be known about how reflective practice and EBP work together in clinical practice. The current research offers the potential to generate preliminary findings of relevance to this topic.

7.1.4 Reflective Practice and Head and Neck Cancer Rehabilitation

Complex practice areas are recognized as locations where practitioners are required to engage in significant levels of reflective practice to monitor their professional actions (Schön, 1983). In light of largely diversified treatment modalities, increasingly unique cases, and diverse outcomes for patients, one such area of practice is head and neck cancer (HNC) rehabilitation (Doyle & Keith, 2005). SLPs working in HNC rehabilitation frequently encounter uncertain and challenging practice situations for which there are no straightforward protocols (Doyle & Keith, 2005), making it an ideal site for the study of reflective practice.

7.1.4.1 Objectives and Research Question.

The aim of this study was to advance understanding about how SLPs engage in reflective practices. The following research question guided the study: How do experienced SLPs use processes of reflection to develop knowledge relevant for practice in the context of head and neck cancer rehabilitation?

7.1.2 Methodology

A grounded theory methodology (Bryant & Charmaz, 2007; Charmaz, 2006) was adopted in order to inductively examine how expert SLPs use processes of reflection to develop knowledge relevant to their practice. The constructivist grounded theory approach is particularly suitable when complex social phenomena are being examined, when little is known about a topic, and when the focus is on 'processes' (Charmaz, 2003; 2006), such as how reflective processes are used in professional practice.

7.1.3 Methods

In-depth semi-structured interviews were conducted with 12 practicing SLPs who were identified as having clinical expertise in the field of Head and Neck Cancer Rehabilitation. Ethics approval for the study was obtained from the research ethics board at Western University. All SLPs provided informed consent as per ethical guidelines.

7.1.3.1 Participant Selection.

Consistent with recommended samples sizes for grounded theory (Baum, 2002; Morse, 2000), 12 SLPs working in head and neck cancer rehabilitation were initially recruited using purposeful sampling, with the assistance of key informants. Key informants were experts in the field who directed the researcher to potential study candidates, after first approaching the candidates to discern their possible interest. Contact was made with interested participants and research packages were forward to each; materials included a letter of information and a consent form. Once consent was obtained a date was set for the first interview.

Participants were recruited according to the following inclusion criteria: a minimum of one year of experience working as a SLP; a caseload of at least 20% of individuals with HNC; practicing in the North American context. Anyone who

did not meet the inclusion criteria above, or who could not communicate in English was excluded from participating in the study.

The final sample included 9 women and 3 men. All were employed full-time as an SLP and were delivering services to HNC patients in Canada or the United-States. Nine had Master's degrees, 2 were PhD candidates and 1 had a PhD. The age of participants ranged from 31 to 60, with a mean age of 45. The years of experience in the field of HNC rehabilitation ranged from 3 to 28, with 10 therapists having more than 10 years of experience. The percentage of one's caseload relative to HNC patients varied between 23% to 100%.

7.1.3.2 Data Collection.

A semi-structured interview guide was developed based on the purpose of the research, a review of the literature, consultation with experts in the field, generation of topics to be examined, iterative dialogue, and the results of pilot tests with 2 practitioners. Two interviews were conducted with each participant either by phone, Skype or in person. The initial interview drew on specific open-ended questions, clinical stories, and probes to elicit metaphors⁸. A portion of the interview involved discussion of five critical incidents (Benner, 2001; Flanagan, 1954) for the purposes of eliciting thick descriptions of participants' processes of reflection. SLPs were further asked about their practice contexts, their understandings of reflective practice, and how they use reflection as a means of professional learning and to generate professional knowledge. The follow-up interview proceeded with any portion of the interview guide not attended to in the first interview, and probed for emerging themes generated in the first interview. Each interview lasted approximately 60 minutes, was audio-recorded and

⁸ Following the Merriam-Webster Online Dictionary (2014), the simplest definition of metaphor is that of a figure of speech in which a word or phrase literally denoting one kind of object or idea is used in place of another to suggest a likeness or analogy between them. Metaphors are commonly used in qualitative studies as a useful means to assist in expressing aspect of an event or experience that are difficult to communicate through words (Carpenter, 2008).

transcribed verbatim. All data were maintained as confidential transcripts through the use of de-identification, as well as being maintained on password protected devices and encrypted systems. Pseudonyms were used to protect the privacy of research participants.

7.1.3.3 Data Analysis.

Data were initially coded line by line, compared with other data and through focused coding assigned to clusters or categories according to obvious fit and relevance (Charmaz, 2006; Stern, 1980). ATLAS.ti (version 7) computer software was used for focused coding, and to manage and organize the data. Through the constant comparison process choices were made regarding the relative salient categories. Concepts that could not be supported by the data were discarded. Determination of the saturation of the categories was based upon data adequacy, sufficiency and depth (Charmaz, 2006). When data revealed no further theoretical insights, saturation was deemed to have been met. Expansion and delineation of the categories also involved memoing; that is, carefully recording emerging propositions, analytical schemes, hunches and abstractions. The theoretical categories were discussed by the research team, and segments were shared with both key informants and participants at different stages of the study. It was the consensus of the team of researchers that the categories developed were trustworthy in terms of their representation of the data.

7.1.4 Findings

Findings from the study serve to inform a preliminary reflective practice model that depicts the processes of reflection used by practitioners in this study (See Figure 9). *Ongoing questioning* was found to be a broad, overarching category used by SLPs in this study in terms of the processes of reflection they employed to develop professional practice knowledge. In addition, eight categories of reflective processes were identified by participant SLPs as a means to negotiate their professional practices and these were linked to the overarching category based on data analysis. These included: *experimenting through trial and error*,

integrating knowledge from past cases, embracing surprise, thinking out of the box, being in the moment, consulting with colleagues, putting oneself in the patients' shoes, and discerning ethical issues. Although these categories are presented as distinct in the present context, they were frequently found to overlap with one another. Finally, exemplars of knowledge accessed through reflective processes also were identified and each of these will be briefly summarized in the subsequent section.

7.1.4.1 Ongoing Questioning: Overarching Category.

The broad category of *ongoing questioning* emerged as an overarching category in the data analysis in that all of the remaining categories can be linked to this one. Each practitioner in this study described what could be depicted as a process of ongoing iterative clinical questioning. As examples, and specific to clinical practice, Joshua stated he questioned “over and over again” and Ruby noted that it was important to “always keep searching and keep reaching out and confirm”. Richard summarized this process as follows:

“It’s a burning question that I may have.... I may not find what I think I am going to find but I think it’s a question that needs to be answered.”

According to the other 8 categories that emerged in the analysis, other examples of iterative questions practitioners asked themselves are presented in Table 4.

CATEGORIES OF PROCESSES OF REFLECTION						
Experimenting through trial and error	Integrating knowledge from past cases	Embracing surprise	Thinking out of the box	Being in the moment	Consulting with colleagues	Putting oneself in the patient's shoes
						Discerning ethical issues
EXAMPLES OF ITERATIVE QUESTIONING						
"What am I gonna do?" (Richard)	"Where have I seen this before?" (Joshua)	"What's going on here?" (Stacy)	"How can I do that differently?" (Ann)	"What do you need today?" (Ruby)	"Hey! Can I run this by you? I've got these thoughts..." (Ruby)	"How would I be in their shoes?" (Melissa)
						"Do we ever offer patients the option to...?" (Stacy)

Table 4: Categories of processes of reflection and example of iterative questioning used by SLPs working in head and neck cancer rehabilitation

7.1.4.2 Eight Categories of Reflective Processes used by Practitioners.

7.1.4.2.1 Experimenting through trial and error.

Eight categories of reflective processes, all linked to the overarching category of *ongoing iterative questioning*, emerged in the analysis and are described in the following sections. First, all of the participants described processes of *experimenting through trial and error*; some examples were stated in terms of responding in practice when there were gaps in the research evidence, while others were described with respect to practice-based experimentation.

Experimenting through trial and error frequently took place when practitioners identified a lack of evidence - “there really is nothing out there” (Julia) - in some areas of practice. As an example, in working with HNC patients with dysphagia (i.e., swallowing difficulties), Stacy talked about how “even though there’s not solid evidence that it works, [if] it makes sense to me physiologically to try this, I’m doing it.” Similarly, Teresa indicated:

“I really feel that even though the evidence-based tells you to do certain things – do a head rotation to the weak side so that the food goes down the strong side, for example. If it doesn’t work, I will still try the other side. It makes me try more treatment techniques on the MBS [Modified Barium Swallow exam] if the ones that are written up don’t work.”

Practice-based experimentation on the other hand was often described as reflecting back on previous experience(s) in order to chart a path of action. For instance, Ann stated that:

“I reflected back on what things I’ve done in the past to help other patients with similar problems to fix this particular patient’s problem.’

Richard further illustrates how he uses trial and error:

“If you get a client coming in with similar problems, like head and neck cancer patients, you draw from experience to kind of guide you. A lot of actually working with somebody [is about]: “Oh! I have seen this before. And this is what worked for the other person. Let me try that. And you know- trial and error based on reflective experience with prior clients.”

This process of *experimenting through trial and error* was frequently associated, in participants’ accounts, with the next category of *integrating knowledge from past cases*.

7.1.4.2.2 Integrating knowledge from past cases.

Another major category that emerged was that of integrating knowledge from past cases. The SLPs frequently reported that reflecting on their experience with prior clients informed their plan of care:

“I reflected on - in the past what other patients have told me about a diagnosis ... thinking about this particular case, I reflected on...what has seemed to be the best approach in the past and I knew that had seemed to be just showing support.” (Joyce)

Joyce further indicated that she *integrated knowledge from past cases* by learning from every patient or experience:

“In a general sense I feel like every single patient I see- Um this is the way I’ve always felt as I practice as a speech language pathologist. Every patient I see contributes something unique to my knowledge base...I do feel like I provide better intervention for my patients based on previous experiences. And not only with what worked but with what didn’t work.”

Stacy discussed how *integrating knowledge from past cases* could potentially be transformative to one’s professional practice. She highlighted the significance of context and experience to fostering deeper understandings in professional practice:

“I think there’s also our clinical experience like what we learn from patients. Sometimes we have powerful sessions with patients or families that change our practice or change our understanding, give us a deeper understanding. So I think that constantly influences us so hopefully if we use that as we- you know- grow and work longer as clinicians. I think just that age and experience is valuable because we have more and more context and experience to draw on.”

Integrating knowledge from the past has the potential to change one’s professional practice, and to allow for deeper understanding that informs action. Teresa described it as a process: “that sort of melds your practice or targets your practice in a certain area.”

7.1.4.2.3 Embracing surprise.

Embracing surprise was frequently highlighted as a process of reflection in participants’ accounts. Many SLPs gave examples of situations in which what happened differed from their expectations. Teresa described this as times “when anything other than status quo comes up.” Other descriptions of surprising situations encountered by participants, included unexpected, unsettling, uncertain, different, and unique. The process of *embracing surprise*, rather than ignoring it, was a theme that emerged in participants’ descriptions. Participants spoke of surprise as a “turning point” (Joyce), as learning to “let go of one’s agenda” (Ruby), an opportunity to “stop and think” and “step back” to figure things out (Ann), as taking time to “reconcile the facts” (Joyce), and as looking at the cultural or situational differences (Melissa). Participants’ accounts of *embracing surprise* were variously described as: contributing to better definitions of situations (Stacy), getting to know patients better (Teresa), changing one’s clinical approach (Melissa), and making a difference in patients’ lives (Richard).

7.1.4.2.4 Thinking out of the box.

Another reflective process was *thinking out of the box*. Participants frequently offered examples of unique ways of thinking as a way to explore possible avenues of action when one is “stuck” or finds him/herself backed “into a corner”

(Joshua). Ruby pointed out that “sometimes the answer doesn’t lie in a textbook or in our profession” highlighting how creative thinking is much needed.

A number of participants gave examples of clinical situations that were not ones found in a textbook; of not knowing what to do; and the decision to either ‘give up’ or to ‘think out of the box’. For instance Joshua illustrated this by stating:

“there is utility in going through this process. It’s worth attempting. It’d be very easy to say: ‘Well, nobody else attempted to solve it I’m not going to be able to. I’m not going to waste my time.’ But I think there’s that room for growth: to stretch your self and try to do something maybe others haven’t been able to do. Whether you succeed or not you definitely learn in the process.”

Many participants reported engaging in thinking about doing things differently in several ways, for instance by looking at things from different angles (e.g., patients, institutional perspectives, etc.) (Ann); looking at what is new [in the research literature] (Louise); looking beyond one’s own discipline: “Hearing other team members’ ‘take’ on the patient” (Ann); looking “beyond communication” (Ruby); and “actively adopting an innovative standpoint for examining one’s practice” (Joshua).

7.1.4.2.5 Being in the moment.

Being in the moment was another process frequently described by participants. Ruby articulated it as follows: “if you are present with someone, truly present, you are constantly reflecting... they go hand in hand.” Stacy indicated that you need to remind yourself “that sometimes [you] just need to listen and to be present”, and Teresa highlighted the need to “take each patient as they are in the moment”.

Teresa spoke of how *being in the moment* allows one to be more responsive; for instance in learning when to ‘push forward’ and when to ‘back off’ in terms of best addressing patients’ needs:

“When I see my patient becoming frustrated or gripping [laughter] the arms of the chair, I back off. Whereas before it was like, “Hang on! Hang on! I’m almost done,

I'm almost done, I'm almost done, you know, kinda thing? Now I just back off and I think it makes them trust me more. That I am in tune to how they're feeling. That's what I think."

A number of participants indicated that the capacity for *being in the moment* was something that could be seen as "developing over time" (Stacy). Richard explained it as follows:

"To reflect during and to be able to self monitor and self adjust - that develops. I didn't have it naturally. I remember going to the therapy session thinking now we're going to do this and the patient is just rolling his eyes, looking at me like I'm crazy. Not being able to read these cues as a newer clinician and then they don't want to come back to see you. Seeing that now as an experienced clinician, thinking you know this isn't working for him right now and kind of backing up and saying, 'How are you feeling? Do you need to take any pain medication right now? Do you feel better?' You know kind of really tuning in on their needs in that moment."

Being in the moment also appeared as something that participants identified as "lacking" (Ruby) at times; for instance if one is multi-tasking, or in light of distractions one may bring to the session or the moment (e.g., worries). In this regard, many participants highlighted the challenge of 'being in the moment'.

7.1.4.2.6 Consulting with colleagues.

Consulting with colleagues was another major reflective process that emerged in the study. *Consulting with colleagues* was reported to occur with other SLPs, other health care team members, and Ear, Nose, and Throat specialists (ENTs). As Stacy stated: "discussion and consultation is a great way to reflect". Consulting with others was identified as valuable for reviewing difficult situations (Stacy) and to inform actions in professional practice as "we hear the experiences of our colleagues and maybe we bring some of that into our practice too." (Teresa).

Consulting with colleagues was also described in terms of "support" (Teresa). Ann indicated that it was important to know that you are not alone in your practice experience, pointing out that consulting with others "validates that you are not the

only one who is going through the same things”. Teresa highlighted how practitioners can develop knowledge from the experience of others: it is “very helpful to hear what other people’s questions are or what their problems are and we gain knowledge from each other’s experience.”

Melissa pointed out how the process of *consulting with colleagues* can also allow practitioners to “celebrate the success”. And, Teresa noted that it involves the capacity to swallow one’s pride and ask for help: “[If] I can’t problem solve something, I will never be too proud to ask for help.”

7.1.4.2.7 Putting oneself in the patient’s shoes.

Another reflective process identified by numerous participants was *putting oneself in the patients’ shoes*. *Putting oneself in the patients’ shoes*, was depicted as an approach that helps practitioners to: reflect on patients’ needs (Ruby); focus on the big picture (Stacy); keep the patient in the forefront (Ruby); not take things personally (i.e., “it has nothing to do with you” (Melissa), advocate for patients (Joyce), and reflect on the entire process (Melissa).

Putting oneself in the patient’s shoes was also linked to advocacy on the patient’s behalf. As Joyce stated:

“We don’t know what it’s like. We haven’t been through the surgery itself but we are advocates ...if that’s all they remember ... at least they will rest easier knowing that we will be there for them.”

With respect to *putting oneself in the patients’ shoes*, Melissa went so far as to suggest that you should “always [be] keeping yourself in that position”.

7.1.4.2.8 Discerning ethical issues.

Discerning ethical issues was a process of reflection highlighted by participants related to various issues such as: liability issues (Ann), allowing a puncture⁹ to

⁹ Opening created through surgical procedure between the trachea and the oesophagus to fit a voice prosthesis (Doyle & Keith, 2005).

close (Joyce), discharging someone from therapy (Joyce), the delegated act of inserting a voice prosthesis¹⁰ (Richard), and decisions regarding voice products (Louise).

One participant, Joyce, reported how she discerned ethical issues by: “thinking about all the pros and cons”, “reflecting on previous experiences”, “considering one’s role and responsibility”, “keeping things as objective as possible”, and “coming to terms with the fact that it’s the patients’ choice”. Another participant, Ruby, mentioned how she asks herself questions concerning ethical issues, for instance, “How much sense does this really make?” and “What is your gut telling you?”.

In *discerning ethical issues*, a number of participants questioned the options offered to patients and expressed concern that patients be “fully informed” before making a given decision (Joyce). With respect to discerning ethical issues, and changing one’s practice in response, Louise stated:

“I learned... to present options and let people take it if they want to. And to just be available when needed... To provide him with options so he knows what’s available. And allow him to make the best decision ... so that he knows he can communicate the best that he can.”

7.1.4.3 Knowledge relevant for professional practice.

Although beyond the scope of the data presented in this paper, many exemplars of knowledge developed through reflective processes were identified in the study. These were largely experiential in nature and included knowledge about: *self, one’s roles and responsibilities, particular cases, patient experiences, how to*

¹⁰ Tube placed between the trachea and oesophagus after a total laryngectomy and trachoesophageal puncture to allow communicating using lung powered oesophageal speech (Doyle & Keith, 2005).

nurture relationships, cultural diversity, how to learn from others, how to understand others' perspectives, how to work in a team, how to work in a bureaucracy, how to negotiate complex contexts, how to advocate within a system, how to deal with death and dying, one's attitudes, and philosophy of practice. These are exemplars of how knowledge relevant to practice was developed through reflective processes within participants' practices in HNC rehabilitation. Such exemplars make explicit that various types of knowledge are important for professional practice and as such, represent examples of 'practice-based knowledge' (Gabbay & LeMay, 2011) or what might be referred to as 'epistemologies of practice' (Schön, 1983, 1987).

7.1.5 Discussion

The aim of this research was to advance our understanding about how SLP practitioners engage in reflective practices. The findings of this study provide empirical evidence in support of Schön's theory of reflective practice. The findings contribute to knowledge about *the ways* in which SLPs use processes of reflection in the context of HNC rehabilitation and inform a preliminary model that depicts core categories of the reflective processes used by these practitioners (Figure 9). In addition, the present findings reveal avenues for future attention, particularly in considering the critical and dialogic dimensions of reflection. The findings also suggest that processes of reflection may be seen to contribute to professional knowledge such as practice-based knowledge or epistemologies of practice, professional artistry and professional craft knowledge, both of which may be seen to complement evidence-based practice. These findings are unique, given that the reflective processes that practitioners use, the perspectives of SLPs, and the context of HNC rehabilitation, have not served as previous sites for research into reflective practice.

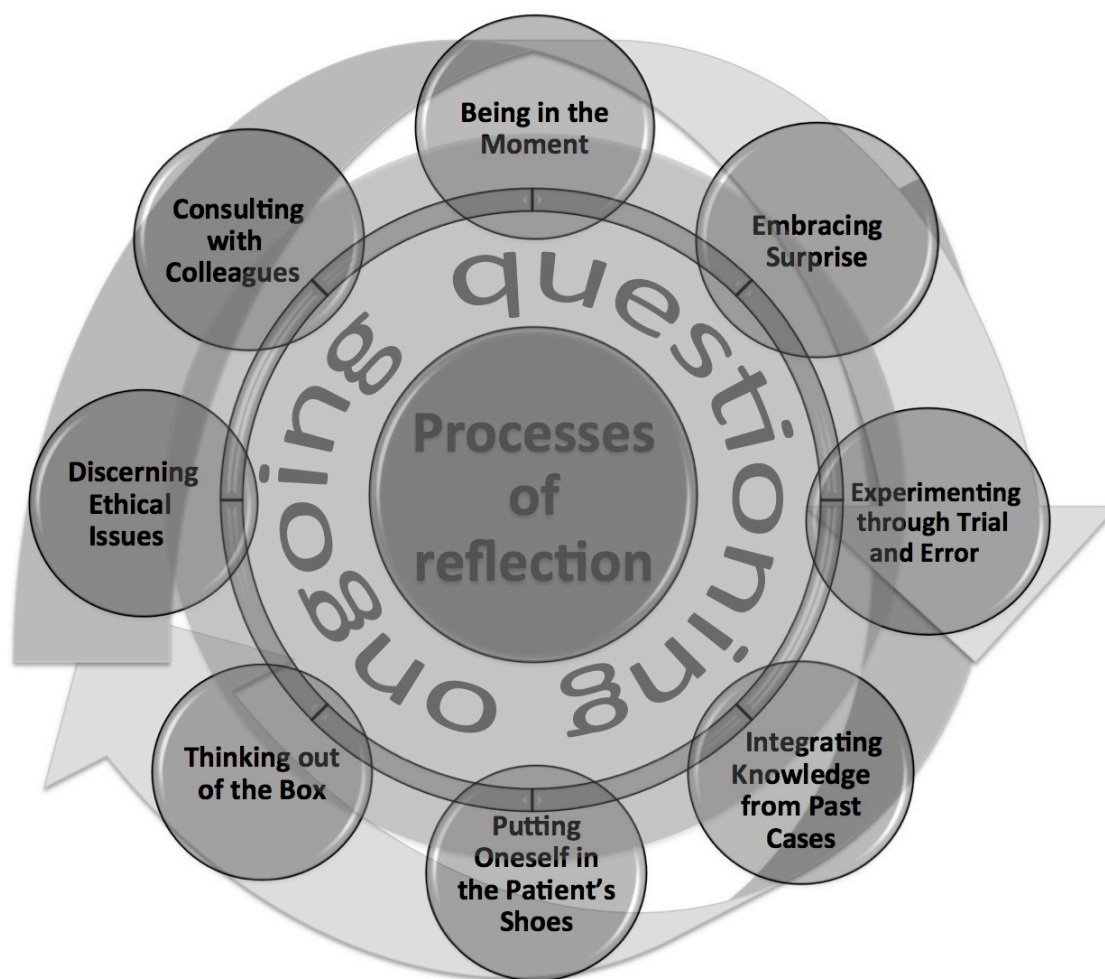


Figure 9: Processes of reflection used by SLPs in professional practice

7.1.5.1 Reflective Processes and the Theory of Reflective Practice.

With respect to empirical evidence that supports the theoretical work on reflective practice, the categories of processes of reflection identified in this study inform a preliminary model (Figure 9) that may guide future professional education and practice and its application by clinicians. These categories relate to several concepts found in the reflective practice literature, and contribute to the empirical evidence about how reflective practice is applied in practice.

The core category, *ongoing questioning*, is consistent with a prevailing logic of reflective practice which views it as a process of coming to know through question and answer (Whitehead, 2000) and which parallels much of the logic of scientific inquiry (Dewey, 1910; Popper, 1959). Questioning is also identified in the literature as a 'core' strategy to prompt engagement in reflective practice (Ghaye & Ghaye, 2011).

The categories *experimenting through trial and error*, *embracing surprise*, and *being in the moment* support the theoretical descriptions of reflection-in-action and reflection-on-action articulated by Schön (1983, 1987). According to Schön (1983, 1987) reflection-in-action occurs in the midst of action when the action can still "make a difference to the situation" (Schön, 1983, p.62). Such reflection is, therefore, triggered by surprise (Schön, 1983, 1987). Schön further describes reflection-in-action as an on-the-spot process of surfacing, testing and evaluating intuitive understanding yielding to new understandings of the situation in the moment (Reynolds, 1998; Schön, 1983). In contrast, reflection-on-action occurs retrospectively. Because the reflective practitioner reflects back on previous actions, it is suggested that reflection-on-action allows for deeper understanding and facilitates learning (Bolton, 2010; Moon, 2004). *Experimenting through trial and error*, *embracing surprise*, and *being in the moment* offer practical examples of how practitioners might actually enact processes of reflection-in-action and reflection-on-action in the practice context.

Another category of the reflective processes identified in the study was *putting oneself in the patient's shoes*. Indeed, Schön stresses the importance of 'framing the problem', by giving specific attention to certain variables in a given clinical situation, in order to 'set the problems' to which a practitioner will attend. While Schön contends that the framing of a problematic situation is as important as the actions taken toward its resolution (Schön & Rein, 1994), he doesn't elaborate specifically on how to do so. In that sense, *putting oneself in the patient's shoes* or thinking about a situation from the client's point of view (e.g., what might be going on in their lives and how they are trying to cope with their situation), might be seen as one concrete approach that contributes to how clinicians in this study 'framed the issues'. That is, the practitioners interviewed herein expressed attempting to understand situations from their client's perspective. This reflective strategy emphasizes the importance of taking into consideration the perspectives of others' (particularly patients) in one's framing of clinical problems. This might be seen as an implied process in the theoretical work of reflective practice, but potentially raises an important area for further practical consideration and study in terms of the dialogic and intersubjective nature of reflective practice.

Two unique categories identified in the current work were *thinking out of the box* and *discerning ethical issues*, which highlight dimensions of reflective practice which Schön didn't elaborate on per se, but which nonetheless are consistent with the aims of reflective practice. The need for imagination and creativity in professional life has been advocated by Greene (1995) and clearly entails processes of reflection, which might be seen to be reflected in the category *thinking out of the box*. *Discerning ethical issues* also may be seen to invoke critical reflection, which is classically discussed in the reflective practice literature by Brookfield (1995) and Mezirow (1990). Critical reflection involves examining the taken-for-granted assumptions and beliefs that frame how practitioners think and act (Brookfield, 1995; Reynolds, 1998). It is seen to assist healthcare practitioners in becoming aware of power dynamics and hegemonic assumptions that may permeate professional practices (Kinsella, Caty, Ng & Jenkins, 2012).

This category draws attention to therapists' consideration of a moral realm in their reflective deliberations in practice.

Another reflective process identified in the study was the category of *consulting with colleagues*. The finding that SLPs regularly engaged in reflection through discussion with colleagues about what they do, and what they think about what they have done, supports emerging discussions of reflective practice as a dialogical practice (Cunliffe, 2002; Taylor & White, 2000) rather than as solely an individualist or monological endeavour (Brookfield, 1995). Brookfield (1995) considers this point when discussing how self-reflection may be a starting point to seeing one's self more clearly, yet also noting the dangers of being trapped exclusively within one's own perceptual framework. In other words, there are dialogical opportunities for learning with colleagues that require more overt attention in conceptualizations of reflective practice. Important opportunities for professional development may be revealed in the process of uncovering aspects of one's tacit and explicit knowledge, and exposing them to the scrutiny of others (Argyris & Schön, 1992).

7.1.5.2 Reflective Processes and Professional Artistry.

Some of the other reflective processes identified in this study may be seen to align with Schön's idea of professional artistry. He defines professional artistry as intelligent and skillful actions in the moment-present, much like jazz improvisation, seemingly resulting in successful handling of problematic or unique clinical situations for which resolution could not rely solely on the application of theories or techniques derived from scientific knowledge (Schön, 1987). Schön contends that there is an art in framing a problem and an art of improvisation – both which are necessary to mediate the use in practice of applied science and technique. For example, *being in the moment* and *embracing surprise* could be seen to parallel proposed characteristics of professional artistry such as synchronicity, attunement, and metacognitive awareness (Higgs & Titchen, 2001b). The reflective processes of *being in the moment* and *embracing surprise* may be viewed as conducive to facilitating a sensitive understanding of the

unique and challenging context, a requisite of artistry highlighted by Eraut (1994). By consciously reflecting upon one's knowing, being, doing and feeling, practitioners may read and respond more successfully to situations comprising 'surprise' (Higgs & Titchen, 1995; Higgs & Titchen, 2001b). The knowledge developed through artistry is different in crucial respects from standard forms of knowledge derived from research paradigms. Higgs and Jones (2008) highlight that health care professionals require various kinds of knowledge to bring artistry to their clinical practices in ways that address complex health needs with humanity, finesse, and a person-centred approach. Schön (1987) further asserts that "in the terrain of professional practice, applied science and research-based technique occupy a critically important though limited territory, bounded on several sides by artistry." (p.10)

7.1.5.3 Reflective Processes and Professional Knowledge.

The findings support the contention that in addition to EBP, practitioners engage in processes of reflection to develop knowledge relevant for practice. Simon's proposition that perhaps only 15% of problems faced in day-to-day practice are black and white (as cited in Schön, 1983) and can be solved through the application of research alone, suggests that EBP may be necessary, but insufficient for competent practice. Thus, in order to successfully attend to the other 85% of clinical problems, those that are often of "greatest human concern", (p.42) Schön (1983) suggests that competent practitioners also need to develop knowledge through reflective processes.

Indeed, contemporary calls for attention to 'practice-based evidence for healthcare' (Gabbay & le May, 2011) can be viewed as responding to this issue and relate to Schon's notion of epistemologies of practice. Epistemologies of practice view practice as "a setting not only for the application of knowledge but its generation" (Schön, 1995, p.29). Schön (1995) further calls for attention to not only "how practitioners can better apply the results of academic research", but also to the kinds of knowing which are "already embedded in competent practice." (p.29).

The importance of practice-based knowledge or epistemologies of practice is highlighted in Higgs and Titchen's (2001a) conception of professional knowledge who propose that professional knowledge is comprised of: 1) propositional knowledge generated through research and scholarship, 2) professional craft knowledge generated through professional experience, and 3) personal knowledge generated through life experiences. From this perspective, the reflective processes identified in the study might be seen as contributing to the practitioners' personal knowledge and professional craft knowledge. In addition, the reflective categories of *experimenting through trial and error* and *integrating knowledge from past cases* might be seen to highlight how SLPs' responses in problematic clinical situations rely to a great extent upon making connections with knowledge generated from past cases.

7.1.5.4 Reflective Practice as a Complement to Evidence-Based Practice.

From a broad perspective, the present study sheds light on how professional knowledge, particularly that which might be considered practice-based knowledge or epistemologies of practice, is generated through reflection. The findings are timely given recent calls to recognize practice-based knowledge as part of a more integrated understanding of what an evidence-based healthcare model entails (Bernstein-Ratner & Brundage, 2013; Gabbay & le May, 2011). The findings reveal the ways in which reflective practice may be seen to complement evidence-based practice in professional life.

7.1.5.5 Implications for Clinical Education and Practice.

Bearing in mind how reflective processes are used by SLPs, our findings have the potential to contribute in a direct way to their future education and professional development. By raising awareness of the potential of reflective practice for developing knowledge relevant to practice, individual SLPs may be better able to fulfill their professional obligations as lifelong learners and become more effective practitioners. By understanding more about the reflective processes involved in the successful navigation of practice, SLPs, students,

educators and practitioners from other professions, can potentially evaluate this model as a means to develop capacity for reflective practice in their own field. In addition, making implicit reflective processes explicit, through a preliminary model, has the potential to assist practitioners to model reflective practice and to educate less experienced clinicians or students in this approach (Loughran, 1996).

7.1.5.6 Implications for Future Research.

In addition to being a highly complex area of practice (Doyle & Keith, 2005), HNC rehabilitation is a specialized area of practice for which the level of preparedness through academic programs varies greatly (Beaudin, Godes, Gowan, & Minuk, 2003; Yuen, Fallis, & Martin-Harris, 2010). Given that a small number of SLPs specialize in the area of HNC, few Canadian and American academic programs devote a full course specific to HNC (Beaudin et al., 2003; Yuen et al., 2010). Thus, on-the-job learning and direct mentorship is known to be the most common source of knowledge advancement among SLPs who specialize in this area (Beaudin et al., 2003). Arguably, and based on the findings of this study, high levels of reflective practice may be seen to advance certain forms of knowledge in specialized and indeterminate practice areas. Highly complex and specialized areas of practice in Speech-Language Pathology could serve as future sites of study of reflective practice, and opportunities to further test and refine the preliminary model we have developed and described. In addition, it would be interesting to assess or compare this model *via* similar studies implemented with health care practitioners from other fields. Finally, further research that explores the dialogic nature of reflection more explicitly through collaborative processes of reflection, and which seeks to examine processes of critical reflection in which systemic issues, and power relations come under scrutiny, may be warranted.

7.1.5.7 Strengths and Limitations of this Study.

One specific strength of this study is the generation of a preliminary model that can be evaluated in various contexts and then potentially used as an educational

tool. A second strength is the quality of the data elicited from the study and the unique contribution it makes to empirical knowledge about reflective practice. A third strength is the quality of the interview guide which allowed for in-depth and detailed elucidation of the reflective processes used by participants. In contrast, however, one limitation of the study is that the sample was quite selective, in that the SLPs who participated were highly experienced. Future studies may benefit from the perspectives of practitioners with a range of levels of experience.

7.1.6 Conclusion

The nine categories presented herein serve to inform a preliminary model of the processes of reflection used by highly proficient SLPs in the area of head and neck cancer rehabilitation. These findings provide empirical evidence in support of Schön's theory of reflective practice, and further contribute to knowledge about *the ways* in which SLPs use processes of reflection in the context of head and neck cancer rehabilitation. In addition, the findings suggest that processes of reflection may be seen to complement notions of artistry, and support contemporary calls for the development of practice-based evidence as a complement to evidence-based practice. Finally, these data reveal avenues for future attention to critical and dialogic dimensions of reflection.

The findings of this study also have implications for how SLPs think about their role as knowledge-users and knowledge producers in their day-to-day work, and for building capacity for reflective practice. Further testing of the preliminary model proposed and empirical research are suggested to continue to advance knowledge about the reflective processes used by SLPs as well as other health care professionals. In addition, further research into the relationship between knowledge generated through reflection (practice-based knowledge or epistemologies of practice) and evidence-based practice would appear to offer promise in further elucidating the artistry that underlies effective professional practice.

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Chapter 8

8. Conclusion

This work concludes with insights and reflections arising from this doctoral research. I begin by reviewing the five integrated manuscripts and discussing common threads that serve to create a 'whole story'. The criteria by which the quality of this grounded theory research might be judged are then discussed. This is followed by considerations of the implications of this body of work relative to theory, practice, education, research and policy in Speech-Language Pathology and other health care professions. I close this chapter by outlining directions for the program of research I propose to pursue next.

8.1 Integrated Manuscript: A Whole Story

This integrated manuscript format thesis is comprised of five manuscripts in addition to an introduction chapter, a methodological chapter and this concluding chapter. The **first manuscript** presented a case study that contributes to understanding of how Speech-Language Pathology clinical experience may be processed through practitioner reflection to develop professional knowledge and contribute to professional practice in the context of head and neck cancer rehabilitation. The **second manuscript**, a scoping review, revealed that while the profession of Speech-Language Pathology appears to have become interested in reflection and reflective practice as an important component of clinical education and practice and use of the terms are evident in the literature, the scholarship on reflection and reflective practice in the field of Speech-Language Pathology is limited. The scoping review pointed to the need for more empirical research evidence to support university-based and work-based educational initiatives involving reflection and reflective practice in Speech-Language Pathology in addition to the need to devote more attention to theoretical and conceptual work related to reflection and reflective practice.

Manuscript three responds to this gap, by offering a discussion of theoretical underpinnings and key elements of reflective practice. In this manuscript, a clinical case scenario is used to illuminate key concepts of reflective practice and to examine their applicability to the development of knowledge relevant for Speech-Language Pathology practice. **Manuscript four** investigates the relevance of reflective practice for Speech-Language Pathology, suggesting its potential to: (1) foster the generation of knowledge from practice, (2) balance and contextualize science with patient care, (3) facilitate the integration of theory and practice, (4) link evidence-based practice with clinical expertise, and finally, (5) contribute to the cultivation of ethical practice. Both manuscript three and four set the foundation for the empirical work by emphasizing that reflective practice is a theory that attends to the centrality of practitioner experience in the generation of knowledge that is directly relevant to clinical practice. The final paper, **manuscript five**, illuminates the ways in which SLPs working in head and neck cancer rehabilitation report using processes of reflection in their clinical practices. The findings of this study offer empirical evidence that supports Schön's theory of reflective practice, and inform a preliminary model that depicts the processes of reflection that SLPs report using in their practices.

8.1.1 Portraying a reflective healthcare practitioner

Taken cumulatively, the manuscripts offer a portrayal of a reflective healthcare practitioner who does more than simply thinking back on what went wrong and what went well in a clinical situation. The reflective healthcare practitioner depicted in this body of work continually asks questions of the materials arising in the clinical encounter, and analyses problems from a variety of perspectives including that of his or her patients. He or she uses knowledge gained from past cases to (re)direct his or her decisions and actions and to develop new ideas or approaches when faced with complex and challenging tasks or problems. The reflective healthcare practitioner avoids thinking of conformity; rather he or she makes use of insights gained from the complexity and uncertainty of clinical practice to problem solve creatively. By reflection-in and -on his or her actions,

the reflective healthcare practitioner makes adaptations to his or her own unique workplace situation, experiments in the midst of practice, and responds in creative ways to the unpredictable clinical situations that arise, and for which there may be no obvious right answers.

In this regard, it is worth (re)emphasizing that reflective practice is a complex process, and any attempt to clarify the processes of reflection may be in danger of “falsely formularizing or oversimplifying it” (Rogers, 2001, p.52). Moreover, a dimension that deserves attention is the value of the uncertainty and complexity within clinical practice, which frequently provides the trigger for, or invitation to, practitioner reflection. Within the reflective practice process, the inherent part of ambiguity in professional practice is necessary to acknowledge alongside any attempt to order or organize it. As found in this body of work, the processes of reflection do not always have a defined beginning and end. This finding is consistent with Rogers’ (2001) contention that reflection:

“... should be viewed as continuous, much like an ever-expanding spiral in which challenging situations lead to reflection and ultimately to new interpretations or understanding. These new understandings may then lead to new challenges and additional reflection. Each new experience with reflection should lead the individual to broadened and deepened understanding, an enhanced array of choices, and a more sophisticated capacity to choose among these choices and implement them effectively.” (p.45)

Above all, (I hope that) the body of work reported here contributes to an understanding that being a reflective healthcare practitioner is something that is lived every moment in the reality of clinical practice; not merely an activity that is taught once and for all as part of a curriculum (i.e., academic work) or a program of continuing professional development or self assessment (i.e., skills assessment).

8.1.2 Modelling reflective practice: A model of processes of reflection used by Speech-Language Pathologists in professional practice

Numerous models of reflection and reflective practice have been developed across many fields of study. These models depict the reflective practitioner as someone engaging in the process of reflection when faced with a disruptive situation; one complex task for which previous knowledge and experience are no longer useful in problem-solving. Through careful examination of his or her experience (either in the moment or after the fact), the reflective practitioner deliberately incorporates what he or she has learned into his or her existing repertoire of knowledge to guide the actions to be taken immediately (in the current situation) or in future similar situations, while also keeping the consequences on these actions in the forefront/in his or her mind.

Over a decade ago, Rogers (2001) examined seven theoretical approaches to reflection in higher education. Theoretical models explored included those of Dewey (1933), Schön (1983), Boud, Keogh, and Walker (1985), Langer (1989), Loughran (1996), Mezirow (1991), and Seibert & Daudelin (1999). Rogers (2001) noted significant variation among the different models. Some authors delineate the process of reflection in stages while others do not describe any steps at all. More recently, in their systematic review about reflection and reflective practice in health professional education, Mann, Gordon and MacLeod (2009) drew on this difference to categorize models of reflection and reflective practice under two major dimensions: vertical and iterative. Vertical models are those that focus on stages or levels of reflection (i.e., depth and quality of reflective thinking), whereas iterative models conceptualize reflection as an iterative process. Among the six models that Mann, Gordon and MacLeod (2009) describe, vertical models are those of Dewey's (1933), Hatton & Smith (1995), Mezirow's (1991), and Moon's (1999), whereas iterative models are those of Boud, Keogh, and Walker's (1985) and Schön's (1983). The foundational, iterative model of Schön's (1983, 1987) 'reflective practitioner' served to inform the current work.

Given the available reflective practice models, one might wonder why do we need further models of reflection? Why not borrow from those already available? Several reasons justified the need for such model. First, the models above mentioned remain mostly theoretical (Mann, Gordon, & MacLeod, 2009). Second, many of those models emerged from the authors' experiences in working with students in formal educational settings (Rogers, 2001). This might be seen to take for granted that upon graduation, practitioners have the capacity to be effective lifelong learners, and more so to be reflective practitioners. While novice practitioners (or students) might need structured approaches or models for reflection, over the course of their careers practitioners will presumably change the reflective processes they use. The underlying idea behind the use of any model is to imitate the behaviour of a real life system (Cox, 2005). In the case of reflective practice, a model can be seen as simulating, and potentially enhancing and expediting the processes involved in learning from experience (Cox, 2005). In light of this, a model that depicts how practitioners in the later stages of their career engage in reflective practice in their actual clinical practices, can be seen as useful for illuminating sustainable reflective approaches, and for encouraging such processes at earlier stages of professional development. Above all, it seems neither possible nor desirable to fix on any one model as the definitive 'one'. I concur with Finlay (2008) who posits that "different models are needed, at different levels, for different individuals, disciplines and organisations, to use in different contexts" (p.10). In the end, it is professional practice and education which will likely benefit from the stimulus – and challenge – provided by competing perspectives and multiple models.

8.1.3 Recognizing the link between reflective practice and learning

In addition to portraying a reflective healthcare practitioner and shining a light on the processes of reflection in which he or she might engage in clinical practice, I suggest that the current work also opens a window into the - too often taken for granted- informal professional learning that takes place in professional practice.

As heard from the participants in the empirical study, a reflective healthcare practitioner *continuously questions* situations of professional practice. In doing so it can be seen that he or she ensures that many professional practice situations become learning situations. In other words, a reflective healthcare practitioner does more than reflection; he or she turns clinical work into professional learning opportunities. Work-based learning encompasses not only clinical placement as part of higher education courses, and semi-formal on-the-job training provided through organisations, but also includes a myriad of informal learning experiences to which healthcare practitioners are exposed throughout their working lives (Cox, 2005). Informal learning in the workplace is differentiated from formal learning in that it leads to the acquisition of knowledge without conscious effort or explicit awareness of what has been learned (Livingstone, 2001).

Some time ago, Jarvis (1999) observed that practitioners would not always possess the competence, or the knowledge, to adequately respond to the rapidly changing healthcare situation, unless they were capable of learning in and from their practice. More recently, based on an ethnographic study on doctors' uptake of research evidence, Gabbay and le May (2011) similarly concluded that informal learning (which they refer to as 'growing clinical mindlines') is vital to negotiating the shifting requirements that shape the way healthcare practitioners practice and implement best practice. Their findings suggest that practitioners tend "not to make direct use of guidelines, systematic reviews and other formal sources of knowledge or research evidence while practicing, but neither did they ignore them." (Gabbay & le May, 2011, p.192). In fact, instead of using guidelines; healthcare practitioners grow and use mindlines. That is, practitioners use internalized, collectively reinforced, and sometimes tacit guidelines based on their past experiences. Their clinical mindlines develop from early on in their training through varied opportunities such as discussion and sharing information with colleagues, a practice that often involves storytelling. (Gabbay & le May, 2011). Gabbay and le May (2011) found that those clinical mindlines appeared to be better suited than formal knowledge promulgated by advocates of evidence-based practice to the negotiation of the many competing roles and demands of

everyday healthcare practice. In that sense, healthcare practitioners' informal learning in the workplace might be seen as holding high promise for solving work-based problems which are not as easily dealt with through evidence-based practices (i.e. basing one's intervention on published scientific evidence or guidelines).

Further establishing the link between the work presented in this thesis and informal learning is the connection of three of the categories of my model with the informal learning mechanisms listed by Cheetham and Chivers (2001). In their empirical research conducted across 20 professions, Cheetham and Chivers (2001) looked at how professionals actually learn once they are in practice. Their results identified several learning mechanisms which ultimately formed a "taxonomy of informal professional learning methods" (p. 282-283). The general learning mechanisms they identified were: 1) practice and repetition, 2) reflection, 3) observation and copying, 4) feedback, 5) extra-occupational transfer, 6) stretching activities, 7) perspective switching, 8) mentor/coach interaction, 9) unconscious absorption or osmosis, 10) use of psychological/neurological devices, 11) articulation, and 12) collaboration and liaison. As one can note, in addition to 'reflection', three other informal learning mechanisms align with my model, namely 'stretching activities', 'perspective switching', and 'collaboration and liaison'. 'Stretching learning activities' reported by the authors involve undertaking pioneering, innovative or challenging work and are posited as offering holistic learning opportunities. This resonates with the category 'thinking out of the box' of my model. Cheetham and Chivers' (2001) mechanism of 'switching perspective', described as deliberately trying to see things from the patient's standpoint, is also described as a particular form of reflection benefiting learning in the workplace. This aligns with the category 'putting oneself in the patient's shoes' of my model. Finally, the category 'consulting with others' can be found to echo Cheetham and Chivers' (2001) 'collaboration and liaison' as an informal learning mechanism, especially the idea of learning from those in related disciplines. Multi-disciplinary work encourages professionals to learn from each other, and according to the participants in Cheetham and Chivers' (2001) study, it

can allow for cross-fertilization of ideas leading to effective problem-solving or more creative brainstorming, and subsequently modify one's outlook at one's own profession and one's ways of seeing the world. As some of the SLPs' reflective processes depicted in my empirical work align with the informal learning mechanisms outlined above, I contend that my model possibly opens a window on what informal work-based learning might encompass.

The findings of the empirical component of this thesis also compare with those reported by Walden & Bryan (2011). These authors specifically sought to identify types of informal learning behaviours engaged in by speech-language pathologists (SLPs) working in healthcare settings. They reported that the SLPs' participants learned informally through collaboration (inter- and intra-disciplinary), working with patients to learn through trial-and-error, and by consulting non-peer-reviewed material on the internet, in addition to peer-reviewed research, in order to learn informally in the workplace. Walden & Bryan's (2011) findings relative to collaboration align with the category 'consulting with others' identified in my study and their findings relative to working with patients to learn through trial-and-error with 'experimenting through trial and error'. The current findings of my empirical work coupled with the informal learning mechanisms outlined above suggest that SLPs learn in many more ways than formal education courses or self-study.

Hence, the current research shows consistency in a number of respects with previous work on professional learning in healthcare generally (i.e., Cheetham & Chivers, 2001; Gabbay & le May, 2011), and in the field of Speech-Language Pathology (i.e., Walden & Bryan, 2011). This work suggests that healthcare practitioners develop themselves professionally in many different ways including through informal learning in their workplace. The body of work in this thesis further contributes to knowledge about how informal professional learning can be mediated by the use of specific processes of reflection. Further it elucidates a number of particular processes of reflection that were seen to inform the enactment of reflective practice in a particular clinical context.

8.2 Quality Criteria

The quality criteria of the empirical part of this study will now be discussed to assist the reader in assessing the quality of this study and the model generated. Within grounded theory, researchers' epistemological positions shape the different emphases on various criteria. Originally the concepts of fit, work, relevance, and modifiability were offered by Glaser and Strauss (1967). *Fit* refers to how well the theory corresponds to the social reality, whereas *work* means it should be able to explain and predict what is happening. The *relevance* of a theory refers to how significant it is to the area under study, and *modifiability* refers to the ability of the theory to adjust if new data emerges. Corbin and Strauss (2008), extend this work, moving beyond adherence to the three scientific criteria of validity, reliability, and generalizability as applied to quantitative research in their conceptualization. To evaluate grounded theories studies, they propose consideration of the data, the research process and the empirical grounding of the findings. Their quality criteria relate to systematic and transparent handling of the data, the careful development of categories and processes, and analysis of the significance of any theoretical findings. Charmaz (2006) builds on these criteria and proposes evaluation criteria for grounded theory research based on the degree that it demonstrates *credibility*, *originality*, *resonance* and *usefulness*. *Credibility* refers to how claims are supported by sufficient data, whereas *originality* refers to how the research offers fresh insights and contributes to the existing body of knowledge. The *resonance* of a theory refers to how it reveals taken-for-granted meanings and makes sense to the participants' accounts; *usefulness* depicts the ability of the theory to be helpful in people's everyday lives and serves to spawn new research questions. Hall and Callery (2001) suggest adding the concepts of *reflexivity* and *relationality* to this list of criteria for rigor. *Reflexivity* involves critically examining the researcher's effect on the data construction and the research process and *relationality* refers to power and trust relationships between participants and researcher (Hall & Callery (2001).

8.2.1 Credibility

I understand credibility to be ensured by: 1) conducting a rigorous and thorough study (Charmaz, 2006), 2) facilitating understanding of the way in which categories are generated inductively from the participants' data, and 3) providing enough evidence in the text so that the reader can follow the logic of the research and thereby form an independent assessment of whether the data support the interpretation.

I contend that credibility was achieved in this work by gathering rich data from in-depth and multiple interviews. Staying close to the data by doing initial, line by line, and *in vivo* coding also facilitated the construction of a grounded theory that offers a credible depictions of the reflective processes reported by participants. I have also included as many participant quotations as feasible within the manuscript format permitted by the targeted journal. The reader may further assess the credibility of the analysis process by judging the fit of direct participant quotations with associated theoretical claims depicted in the empirical manuscript (chapter 7).

Finally, the credibility of any study is also related to making claims appropriate to the strength of the data collected. In that sense, I have remained sensitive to the purpose of the study throughout the analysis, emphasized that the conclusions drawn are informed by my interpretation, hence ensuring that I contextualize this work and not claim it has generalizability, while also holding that the findings may be practically transferrable.

8.2.2 Originality

Charmaz (2006) suggests *originality* as a criterion for quality research, advocating for research that: (1) offers new insights, (2) explicates social and theoretical significance, and (3) considers how the work refines, extends and/or challenges current concepts. Throughout this integrated article format thesis, theoretical and practical contributions have been discussed, highlighting the

potential for original impact of this work. The originality is especially emphasized in the empirical contribution of this thesis (**Chapter 7**/integrated manuscript five) given that the reflective processes that practitioners use, the perspectives of SLP practitioners, and the context of head and neck cancer rehabilitation, have not served as previous contexts for research into reflective practice. Further, within speech-language pathology, and as far as I am aware, this is the first empirical study that has specifically attended to the processes of reflection and the consequent reflective practices of practising clinicians. Outside of speech-language pathology, this is one of a handful of studies that examine reflective practice in a population other than 'students in practicum settings'.

8.2.3 Resonance

Charmaz (2006) also suggests *resonance* as a criterion for quality research, advocating for research that (1) reveals taken-for-granted meanings and (2) offers deeper insights about participants' experiences (makes sense to the participants). Resonance was sought by seeking saturation of the categories, grounding theoretical observations in the data and ultimately aiming to reveal the meaning speech-language pathologist participants' attributed to their reflective experiences.

I experienced resonance with participant responses in light of my past experience as a speech-language pathologist. My dissertation supervisors Philip C. Doyle who has extended clinical experience with this population, and Elizabeth Anne Kinsella who has considerable theoretical and practical experience with reflective practice, both expressed their sense of resonance with the developing concepts and categories in the research presented here. The findings held resonance with members of the public when I presented my work in professional venues and conferences. Some members of the audience expressed resonance with the process through their interested questions and positive feedback about my presentation. Also, the participants of the study expressed resonance with the process through their authentic participation and positive feedback about the

process. Finally, as the reader reads this treatise, he or she may think about which elements of the theory resonate or do not resonate with his/her experiences.

8.2.4 Usefulness

I understand usefulness as carried out when the interpretations offered by the researcher have practical applications in the everyday world and spark further research into other substantive areas (Charmaz, 2006). In all of the manuscripts forming this integrated article thesis format, I have attempted to make practical links to the potential applications of this research in various contexts. I further expand on how this work contributes to conceptualizations of reflective practice in speech-language pathology, and potentially has practical implications for other health care professionals later in this chapter. At the end of this chapter I also discuss the possibilities for future research suggesting avenues to refine, extend, and challenge existing knowledge which attest to the usefulness of this work.

8.2.5 Reflexivity

Reflexivity involves critically examining the researcher's effect on the data construction (Hall & Callery, 2001). I have engaged in reflexivity throughout the research process through memo writing, and ongoing iterative dialogue with my doctoral supervisors, committee members, and interested colleagues. I have written about my reflexive insights in this thesis, first by situating myself and reflecting on my beliefs and assumptions about this research in the form of a researcher statement in Chapter 1, and next by outlining reflexivity in research practice in the methodological chapter (chapter 6). I will now briefly consider how interviewer and participants may also have influenced the actual interview process.

While identifying with the research participants in terms of professional background and clinical practice related to head and neck cancer, my level of identification in terms of familiarity with the theory of reflective practice was

distinct. In that sense, throughout the interview process I was alternately negotiating the position of an 'informed insider' relative to the clinical dimension (for example, when the participants narrated a critical incident), and the 'curious researcher' or 'outsider' relative to processes of reflection and learning. The position of the 'informed insider' may have helped in the development of trust and disclosure between the researcher and participant. On the other hand, the position of the 'curious researcher', characterized by attention and genuine interest in participants' stories and reflections, may have assisted in being open as a researcher to new and emerging insights throughout the interview process (instead of imposing my pre-conceived view). Although the interviewer and participants' past assumptions and experiences may have shaped the interview process, the approach to and the structure of the interview may also have influenced the interview process.

8.2.6 Relationality

Similar to Hall and Callery (2001), I believe that the quality of the relationship between the researcher and her/his participants influences self-disclosure and thus ultimately the depth and quality of data collected. Therefore, careful attention to the researcher-participant relationship was given throughout the interview process. Specifically, in this study, the establishment of a relationship of trust was facilitated by initial self-disclosure of my professional background and motivation for undertaking this research. This provided the opportunity to develop a connection between the researcher and the participants and to further create common ground. Expectations were also set, such that participants were invited to engage in advancing understanding of reflective practice together with the interviewer. This is illustrated in the following excerpt of an interview:

Interviewer: So, yeah, oh. That's a good analogy. I like it. Thank you for sharing.

Participant: You're welcome.

Interviewer: So, if there are any others while we speak I might point it out to you and we might think together a little bit about it.”

I also offered the participants the opportunity to choose through which modalities their interviews would be conducted (i.e., face-to-face, by Skype or by phone) with the “hope that they would be more forthcoming in the approach with which they were most comfortable” (Knox & Burkard, 2009, p.5). Across all the semi-structured interviews completed for this study, participants appeared to appreciate the opportunity to share their stories and reflection. Some stated that doing so was beneficial because it allowed them to reflect upon profound professional experiences; others mentioned that they became more cognizant of reflective moments throughout their day. For one more reticent participant, my sense was that being face-to-face may have been even less comfortable than it would have been by phone - which affords more anonymity (Kvale, 1996). Multiple interviews (i.e., two per participant) may also have fostered a stronger relationship between researcher and participant, such that the latter felt more comfortable to deeply describe difficult or emotionally laden experiences to someone with whom prior contact and some level of trust had been established (Adler & Adler, 2002). Ultimately, it is my commitment to a constructivist perspective within grounded theory that shaped the ways in which, I, as an interviewer, attempted to consciously attend to the relational aspect of the interview process.

8.3 Implications of this Work

The rigorous approach to this collective work yielded theoretically meaningful contributions about reflective practice and a credible empirical model that depicted the processes of reflection used by SLPs in this study. Theoretically the work contributes to a ‘language’ to engage in meaningful discussions about the conceptualization, relevance and application of reflective practice in the Speech-Language Pathology field. In addition, advancing understanding about the processes of reflection reported by experienced practitioners offers practically

useful knowledge with the potential to inform practitioners' lifelong learning and professional development, the education of students in the healthcare and rehabilitation sciences, further research in health professional education and practice, and managerial and organizational continuing education policies. The implications of this body of work will now be discussed relative to five pillars of the profession, namely, theory, practice, education, research and policy.

8.3.1 Theory

The dissertation makes important contributions to theoretical knowledge about reflective practice particularly in the field of Speech-Language Pathology, by: a) mapping the state of the current literature on reflective practice in the field of Speech-Language Pathology through a scoping review (integrated manuscript 2); b) informing a conceptual understanding of reflective practice as an approach to knowledge generation relevant for professional practice (integrated manuscript 3); and by c) investigating the potential contributions of reflective practice to the field of Speech-Language Pathology (integrated manuscript 4).

8.3.2 Practice

Taken together, an integrative question that all of the manuscripts respond to could be formulated as follows: How can we help practitioners to help themselves to cope with the complexity of professional practice in healthcare? Practitioners may benefit from reflecting and comparing their own reflective practices against the approaches reported by the experienced speech-language pathologists from this study. By thinking about the reflective approaches they use to manage their own practices, and recognizing the informal learning that takes place through their work, speech-language pathologists may be challenged to revise their approaches or adopt new ones. By raising awareness of the potential of reflective practice for developing knowledge relevant to practice, individual SLPs may be better able to fulfill their professional obligations as effective practitioners and lifelong learners. The current research may be used to better inform SLP practitioners regarding how to optimize their work-based informal learning

through reflective practice.

8.3.3 Education

In my experience as a clinical educator, I sometimes hear student-clinicians complain about reflective practice as yet another demand in graduate school. I concur with Freedman (2013) that “it is important to emphasize to students that these [reflective] exercises should not be viewed as yet another ‘requirement’ in graduate school, but rather a tool which can significantly improve one’s clinical skills.” (p.380). Making explicit the elements of experienced healthcare practitioners’ reflective practices, those that lie beneath their observable and daily clinical performances, is vital if reflective practice is to be seriously developed as one of the many sustainable capabilities appropriate for one to work effectively in ever changing context (Eraut, 1994; Fraser & Greenhalgh, 2001). In addition, given the conceptual confusion surrounding reflective practice, and the relative absence of considered work on this topic in Speech-Language Pathology, thoughtful articulations of the theoretical underpinnings of the theory (integrated manuscript 3), potential applications to the Speech-Language Pathology practice field (integrated manuscript 4), and the current state of the literature in Speech-Language Pathology (integrated manuscript 2) offer important conceptual contributions.

The findings of the empirical part of this study show that practitioners’ processes of reflection might yield to different reflective activities than those commonly used with students early in their education, such as journaling and guided reflection (Mann, Gordon, & MacLeod, 2009). Reflective activities such as journaling and guided reflection in educational contexts might not easily transfer to the work-based context. Nor will reflective capabilities transfer from educational to work situations without being resituated to this context, which might require significant further guidance and support. The role of a coach or mentor to assist students in developing habits of reflective practice is key in Schön’s (1983, 1987) work and is also frequently reported in the literature (Rogers, 2001). One of the ways that

clinical educators may facilitate reflection in their students is through modeling. This requires clinical educators to both practice reflection and to become aware of the ways in which they practice reflection in their daily clinical practice - processes for which most have never received formal training (Rogers, 2001). The findings of this research suggest that even without formal training the experienced SLPs participants made use of reflection in their daily practice and they were able to articulate such processes. The collective examination of practitioners' reports of how they use reflection in their practices, contributes to making this tacit or implicit process more explicit. Knowledge of the reflective approaches used by experienced therapists may assist other SLP practitioners to more readily apprehend and make explicit their own reflective processes. This can contribute to improvements in their own professional practices, as well as in their capacities to demonstrate reflection for their students in clinical educational roles.

8.3.4 Research

By understanding more about the reflective processes involved in the successful navigation of practice, SLPs, students, educators and practitioners from other fields, can potentially test out this model in their own field, as a means to develop capacity for reflective practice. Highly complex and specialized areas of practice in Speech-Language Pathology could serve as future sites for the study of reflective practice, and as locations to further test and refine the preliminary model developed in this study. In addition, it would be interesting to test, or compare this model, through similar studies implemented with health care practitioners from other fields. Finally, further research that explores the dialogic nature of reflection more explicitly through collaborative processes of reflection, and that examines processes of critical reflection in which systemic issues, and power relations come under scrutiny, may be warranted.

8.3.5 Policy

Literature on human resource management highlights the role of the manager as a staff developer, which is conceived of in terms of appraisal of performance and target setting, planned development opportunities, mentoring, and coaching (Eraut, Alderton, Cole, & Senker, 2000). Methods available to support learning and staff development normally emphasize motivation, productivity, and appraisal of performance (Eraut, Alderton, Cole, & Senker, 2000). The findings of this research have the potential to widen the approaches used in human resource management by considering reflective approaches as well. Boud (2006) advocates creating space for productive reflection at work while recognizing that this can be a challenge because reflection is not normally part of the workplace discourse. Much of the normative literature on human resource development gives workplace managers a key role in facilitating the learning and development of the people they supervise (Boud, 2006; Hughes, 2004). Organizations aware of the impact of informal learning processes, such as those facilitated through processes of reflection in the workplace, are in a better position to support and guide their employees, but also to cultivate organizational cultures which promote and capitalize on reflective practice and the facilitation of professional knowledge (Marsick, 2009). Facilitating formal and informal learning activities in order to enhance effectiveness and efficiency in the workplace is not an easy endeavour for any organization. In this sense, the collective work of this thesis might also prove useful in informing managers and organizations that employ SLPs and other healthcare practitioners about reflective practice; hence preparing them to (better) support practice-based and informal learning in the workplace.

8.4 Directions for a Future Program of Research

It is frequently acknowledged that 'unpacking' practitioners' thought processes is a notoriously difficult task in the research endeavour (Gabbay & le May, 2011). Nevertheless, this interpretive research work has confirmed the value of doing so,

and this encourages me to further pursue the examination of reflective practices among healthcare practitioners in the future. Evidence is still required to substantiate the learning outcomes of reflective practice. The matter of education and preparing students for reflective practices is an area that requires ongoing attention, particularly with respect to how to facilitate this process in a manner that moves beyond methods such as reflective journals, guided reflections, and self assessment protocols, and that embraces the complexity of practice as a context for ongoing reflection and learning.

8.5 Conclusion: On the Way to Reflection

In reading the reflective practitioner by Donald Schön (1983, 1987), and related work on reflection, reflective practice, and reflective learning, I found a language to understand and to articulate the experiences that arose from my clinical practice. Above all, the foundational and thought provoking readings from this field of study suggest an approach to health professional education and practice that encompasses reflective pedagogy in both preparatory and continuing education. Such conceptualisations speak to the benefits of reflection in practitioners' immediate professional situations as well as in relation to their wider social context as a means to contribute to professional development, and the positive transformation of our world. Further, the work raises questions with regard to my role as an educator and scholar, one of which concerns how to educate practitioners in ways that deeply engage processes of reflections and learning- rather than simply depositing knowledge into learners as if they were empty vessels waiting to be filled with increased knowledge? Moving beyond this 'banking model' of education (Freire, 2007) necessitates the development as I have argued throughout this work, for informal practice-based learning through reflective practice. Given that "practitioners learn even faster after qualification than before it" (Brumfitt, Enderby, & Hoben, 2005; p.154), it is critical to support the complex learning processes related to reflective practice and to make it explicit not only to students but to practitioners themselves. We can no longer

expect that with increased clinical experience, learning and professional development will automatically occur. I hope that through this work, not only have I found my way to reflection, but that an invitation is extended to my colleagues and profession to take up the challenge.

8.6 References

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Appendices

Appendix A: Semi-Structured Interview Guide for In-Depth Interviews with Speech-Language Pathologists (SLPs)

The following interview guide will be used to facilitate two semi-structured interviews of 60-90 minutes each with SLP participants. The researcher will also probe generally for other information that arises and contributes to understanding of How SLPs develop knowledge relevant for professional practice through processes of reflection in the context of head and neck cancer rehabilitation.

A. OPENING:

- I. (Interview 1) I'm interested in understanding more about how SLPs learn by reflecting on what they do. Based on what I hear from practitioners I hope to develop a model of how reflective practice contributes to the knowledge of SLPs working in HNC. So if there's anything that you'd like to share with respect to this topic in the interview today, I'd love to hear from you about it.*

I have some interview questions to help guide the interview, however they are simply guides, so please feel free to share any other information that you think will be important for understanding how you learn and develop knowledge important for your professional practice through processes of reflection.

Do you have any questions before we begin?

- II. (Interview 2) Thank you again, for the time you spent with me in the previous interview. Today's interview is in two parts. First, I would like us to complete some of the questions that we did not have time to cover in our last session.*

After this, I've transcribed and reviewed the transcripts from our last session and there are a few topics that I'd like to discuss further with you. I would like for us to spend some time discussing and reflecting about the specific activities that you do when working with individuals with head and neck cancer. This is to understand more deeply the ways in which you may

engage in reflection through the everyday dimensions of your professional practice.

Do you have any questions before we begin?

B. INTERVIEW QUESTIONS:

- 1. Please describe your current position as an SLP.**
- 2. Describe your specific work with head and neck cancer (HNC) patients as if I know nothing about what you do.**
- 3. Before deciding to participate in this study, had you heard about reflective practice?**
 - a. If so, how did you learn about it? What do you understand it to be?
 - b. If not, what do you think it is about?
- 4. Do you consider yourself to be a reflective person?**

Probes:

Do you intentionally reflect on situations in your practice?

Do you feel you learn from thinking about what you are doing in your practice?

Can you give me some examples of how you reflect or learn from your experience?
- 5. Would you say you've become more or less reflective since you've been working as an SLP? How? Why?**
- 6. Do you think reflection contributes to your work (i.e. guide or shape your practice) as an SLP in HNC? If so, how?**

Introduction to critical incident vignette:

Reflective practice is often associated with how one learns from doing – in their daily work, or how one learns from experience. We often reflect more than we realize—reflective practice might be part of our daily work life more than we realize. And we may not often take time to think much about it. Next, I'd like for us to think together about this. Drawing on your experience in practice, I would like to ask you about some clinical situations and what you thought during the situation, what you did, the nature of your reflections, and how you learned or became more skillful in your professional practice.

- 7. Critical Incident Vignette: Can you think of any situations in your practice where you have had an especially successful experience with HNC patients? A moment when you thought you really made a difference in the patient outcome. Can you tell me a short story about this experience?**

Probes to elicit processes of reflection:

- a. What did you *think* about?
- b. What did you *do*?

- c. What did you learn from it? How do you know you have learned from it?
- d. How would you explain the precise role of reflection in this specific experience/situation?
- e. How, if at all, did reflection and the learning you gained from it influence your future practice?

8. *Critical Incident Vignette:* I'm wondering if you can think of any times when you've faced a situation in practice that did not go well- there was a breakdown, things that did not go as planned. Can you tell me a short story about this experience?

Probes to elicit processes of reflection:

- a. What did you *think* about? Or did not *think* about?
- b. What did you *do*? Or did not *do*?
- c. What did you learn from it? How do you know you have learned from it?
- d. How would you explain the precise role of reflection, or the lack thereof, in this specific experience/situation?
- e. How, if at all, did reflection and the learning you gained from it influence your future practice?

9. *Critical Incident Vignette:* Some practitioners begin processes of reflection when they have a reaction in their body- for instance a sick feeling in the stomach, a chill up the spine, or another bodily sensation. Can you think of any experiences in practice where you had a significant bodily response that caused you to reflect on the situation? Can you tell me a short story about this experience?

Probes to elicit processes of reflection:

- a. What did you *think* about?
- b. What did you *do*?
- c. What did you learn from it? How do you know you have learned from it?
- d. How would you explain the precise role of reflection in this specific experience/situation?
- e. How, if at all, did reflection and the learning you gained from it influence your future practice?

10. *Critical Incident Vignette:* Can you think of any times when you've done something in clinical practice that might seem unconventional but that you knew was the right thing to do?

Probes to elicit processes of reflection:

- a. What did you *think* about?
- b. What did you *do*?

- c. What did you learn from it? How do you know you have learned from it?
- d. How would you explain the exact role of reflection in this specific experience/situation?
- e. How, if at all, did reflection and the learning you gained from it influence your future practice?
- f. How did you get this idea? What thinking/ How did reflection lead you to this idea?

11. *Critical Incident Vignette:* Can you think of a time when you encountered a situation in practice for which there was insufficient evidence but you had to act? Can you tell me a short story about this experience?

Probes to elicit processes of reflection:

- a. What did you *think* about?
- b. What did you *do*?
- c. What did you learn from it? How do you know you have learned from it?
- d. How would you explain the exact role of reflection in this specific experience/situation?
- e. How, if at all, did reflection and the learning you gained from it influence your future practice?

12. What types or sources of knowledge do you draw on in your work as an SLP?

13. What do you need to know to be a 'successful' SLPs working in head and neck cancer rehabilitation?

14. Are there any metaphors, for instance analogies or visual images, that come to mind when you think about the ways in which reflection contributes to your professional development?

C. CLOSING:

15. Is there anything else that you think I should know to better understand how you or other SLPs might use processes of reflection to develop your professional knowledge in HNC?

16. Is there anything you would like to ask me?

17. Participant Demographics:

1. Gender: Female <input type="checkbox"/> Male <input type="checkbox"/>
2. Age: _____ (yrs)
3. Education: _____
4. Years of SLP practice: - Total: _____ (yrs) - HNC: _____ (yrs)
5. Employment Status: part-time <input type="checkbox"/> full-time <input type="checkbox"/>
6. % caseload relative to HNC: _____ (%)

To conclude the researcher will thank participants for their involvement in the study, and provide a brief overview of the expectations for the next follow up session or of the next steps of the research project.

Interview 2:

In interview 2, the interview schedule will be completed. In addition 3 to 5 scenarios from the participant's first interview will be probed more deeply with the aim of eliciting a) a more elaborate description of what SLPs actually do when working with individuals with head and neck cancer in their practice and b) a deeper understanding of the ways in which reflective processes (and the knowledge generated from them) inform these specific activities as part of their professional practice.

Example of in-depth probes for Interview 2:

What do you do? How, if at all, did reflection and the learning you gained from it influence this practice/activity/doing?

- Further probing for Activities:

Why are you doing this?

How are you doing this?

What else are you doing?

- Further probing for Context:

Where do you hold this first meeting?

Where do you sit? How?

Who is there? Why?

What materials do you use? Do you use printouts? Why?

Any other objects/material you use?

- Further probing for Experience:

What are you aware of during the session/meeting? Why?

What sounds are there?

What smells are there?

Who do you talk to?

What do you say? What can't you say?

Are you taking notes? What notes? What for? How?

What bodily contact(s) with the patients are there? How? Why?

Any tasting involved?

Appendix B: Scripts for Email and Telephone Recruitment

Email

Subject: Research Assistance Sought from Speech-Language Pathologists

Are you a Speech-Language Pathologist who has experience working with individuals with head and neck cancer? Such a complex practice area is recognized as a location where SLPs are required to engage in significant levels of reflective practice to monitor their professional actions.

If you have **at least a minimum of 1 year of experience** and have a **caseload of at least 20%** of individuals suffering with head and neck cancer you are eligible to be part of a study that aims to gain a greater understanding of how practicing Speech-Language Pathologists' (SLPs) use reflection in their everyday practice and the implications for the generation of professional knowledge.

The study is part of a PhD thesis and involves participation in two interviews. Each interview should take 60-90 minutes of your time. There will be a draw for a reflective practice workbook if you complete both interviews. Personal insight about your clinical work potentially gained from the interviews could prove to be a continuing learning activity that is relevant for you.

To be part of this opportunity to contribute to evidence regarding reflective practice in Speech-Language Pathology, please click on the following attachment (LETTER OF INVITATION) to read more information about the study. You can contact me directly via email to make arrangements for an interview or find out more information about the research. Your response within two weeks is greatly appreciated.

Marie-Ève Caty, M.P.O. SLP(r)
PhD Candidate, Health and Rehabilitation Sciences (Health Professional Education), The University of Western Ontario, [REDACTED]

Telephone

Hi, this is Marie-Ève Caty from the University of Western Ontario. How are you?

As you may already know, I am doing a study about how SLPs develop knowledge relevant for professional practice through processes of reflection in the context of head and neck cancer rehabilitation. Your name and contact information were passed on to me because you are eligible for the study and/or have expressed interest in participating in this study.

Is this a good time for me to provide you with more details of the study?

➤ If not:

When would be a better time for me to call you back?

➤ If yes:

I am doing a research project that aims to gain a greater understanding of how practicing Speech-Language Pathologists' (SLPs) use reflection in their everyday practice and the implications for the generation of professional knowledge.

By reflective practice, I mean, "how we learn by doing" or how we come to new understandings and gain insight from careful consideration and examination of our practice. Such processes of reflection have the potential to contribute to professional knowledge. By professional knowledge, I

mean 'therapist knowledge' which complements 'research knowledge' and 'client knowledge'. Complex practice areas are recognized as a location where therapists are required to engage in significant levels of reflective practice to monitor their professional actions. I believe that one such complex practice area is that of Head and Neck Cancer (HNC) rehabilitation, thus a relevant location to use reflective practice.

You are being invited to participate in this research study because you have clinical experience working with individuals who have head and neck cancer. To be included in this study you must have a minimum of 1 year of experience as a SLP which does not necessarily have to be in HNC rehabilitation. You must also have a caseload of at least 20% of individuals suffering with head and neck cancer and be must be practicing in the North American context.

Does this fit your current position?

It is anticipated that there will be a minimum of twelve SLPs/participants in this study. I will be asking you to meet with me in a location mutually agreed upon to participate in two interviews of 60-90 minutes each to share your perspective on how you use reflection in your everyday professional life. Many people have not thought of this question before, so it is often an interesting topic to explore. In the second interview we will discuss some themes emerging from your initial interview, as well as some additional questions about reflection and your professional life. The two interviews will take place within a period of one to two months of one another. Both interviews will also be audio-recorded. Your name, address and other identifying information will not be recorded and any information that could potentially identify you will be erased or changed to protect your anonymity. After the project is finished all of the recordings and notes will be destroyed.

It is important that you understand that you are volunteering to participate and you can choose to leave at any time. You can also choose not to answer or discuss any particular question.

Do you have any questions regarding the study, the researchers, or your involvement?

Are you interested in participating?

➤ If not:

I thank you for considering participating.

➤ If yes:

What time and/or place would be convenient and comfortable for you to meet? (options: your office, your home, at a UWO interview room or at a private and quiet room in a public library).

*Address, phone number or Skype contact information will be recorded dependent on the participants' availability and preferences and geographic factors.

Appendix C: Participants' Demographics Table

Characteristics	Participants (n=12)
Gender	9 women 3 men
Age (mean)	45 yrs (min: 31; max: 60)
Years of SLP practice in head and neck cancer rehabilitation (mean)	17 yrs (min: 3; max: 28)
Employment status	12 F-T
% caseload relative to head and neck cancer rehabilitation	23-100%

Appendix D: Letter of Information and Consent Form



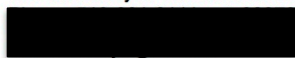
Health and Rehabilitation Sciences

Letter of Information and Consent Form

Study Title: Reflective practice and professional knowledge: A grounded theory study among Speech-Language Pathologists working in head and neck cancer rehabilitation

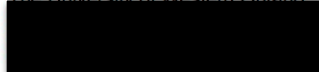
Study Investigator:

Marie-Eve Caty, PhD Candidate, Student-Researcher
Health and Rehabilitation Sciences
The University of Western Ontario

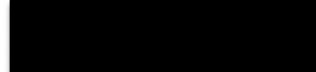


Co-Investigators and Thesis supervisors:

Elizabeth Anne Kinsella, PhD
Associate Professor
Health Professional Education Field
Health and Rehabilitation Sciences
School of Occupational Therapy
Faculty of Health Sciences
The University of Western Ontario



Philip C. Doyle, PhD
Professor
Health and Rehabilitation Sciences
Department of Otolaryngology Head & Neck
Surgery
The University of Western Ontario



Name of participant:

Address:

Phone:

Thank you for expressing interest in participating in this study which will take place until December 2012. This form outlines the purposes of the study and provides a description of your involvement and rights as a participant. This should provide you with the information required to make an informed decision about participating in this research study and help to answer any questions you may have.

You are being invited to participate in this study because you have personal clinical experience as an SLP and you work with individuals with head and neck cancer. Your insights about how you might use processes of reflection in your clinical practice to learn from your professional experience and to develop your knowledge are of particular interest to the researchers, and have the potential to make an important contribution to the professional and educational practices of future SLPs.

To be included in this study you must have a minimum of 1 year of experience as a SLP which doesn't have to necessarily be in HNC rehabilitation. You must also currently have a caseload of at least 20% of individuals with head and neck cancer and must be practicing in the North American context.

Purpose and Objectives of the Study:

The purpose of this study is to systematically examine Speech-Language Pathologists' (SLPs) professional learning through reflective processes and the implications for the generation of knowledge relevant for professional practice.

The objectives of this study is:

- a. To develop a theoretical model that will enhance the capacity of practitioners to use reflective practice to develop professional knowledge, and in turn influence the quality of care provided to individuals with head and neck cancer.

By examining reflective processes in everyday health care practice and the implications for developing the knowledge of SLP practitioners, it is hoped that this study will contribute to a better understanding of the capacity of reflective practice to contribute to practitioner knowledge significant for professional practice.

Participation:

If you decide to take part in this study, your participation will consist of two, 60-90 minutes interview sessions with the above mentioned student-researcher at a location mutually agreed upon* (e.g. your workplace or an office at the university) at a time that is convenient to you. In order to have a record of your perspectives, the researcher will audio record the sessions.

The initial interview will involve a dialogue about your processes of reflection and learning. We will further discuss what this might mean in terms of developing knowledge relevant for your professional practice. You will be asked to comment on clinical stories and your professional activities. A second interview will take place within one to two months of the initial interview. The second interview will continue the dialogue introduced in the first interview, discuss themes that began to emerge in the initial interview. You will also be invited-but not required- to provide feedback on a preliminary version of the theoretical model, and your insights will be considered in further development of the model.

How much time you must commit to participate in this study:

Your participation is requested for two interviews. Each interview is approximately 60-90 minutes in length. The two interviews will take place within a period of one to two months of one another.

Risks and discomforts to you if you participate in this study:

There are no known risks associated to your participation. However, you may want to volunteer personal information and insights that may cause you to feel uncomfortable, anxious or upset. Please be assured that the researcher will make every effort to minimize these risks. Remember that you can choose not to answer any question that you feel is too personal.

Benefits to you if you take part in this study:

Your participation in this study may help you to develop further personal insight about your clinical work and reflective approaches to professional learning within your practice. This could prove to be a continuing learning activity that is relevant for you. The study will also expand the knowledge base regarding reflective practice in Speech-Language Pathology. In addition, this study may help inform the future policy and practice of professional development in Speech-Language Pathology.

Confidentiality & Privacy:

Every possible measure to maintain confidentiality of the information you share will be taken. The personal information and content will be used only for the purpose of this study, and the researcher will

* Interviews will be completed face-to-face (ideally) or via telephone or Skype (dependent on your availability and preferences and geographic factors).

protect confidentiality by locking your research data in a secure filing cabinet. Anonymity will be protected through the use of coding. Your name will be connected to a number on a master list, which will be stored in a locked filing cabinet. Only the researchers will have access to this master list. A pseudonym, which you may choose, will be assigned to each participant, and used in presentation or written materials emerging from the research. Representatives of The University of Western Ontario Health Sciences Research Ethics Board may contact you or require access to your study-related records to monitor the conduct of the research.

What will happen with your data:

All data collected including digital audio recording of interviews, transcripts, and researcher notes will be kept in a locked filing cabinet in a locked office at the University or on a pass-word protected laptop/encrypted file system and will only be available to the research team. It is anticipated that the results of the study will be published and presented. In all dissemination activities your real name will not be used and no identifying information will be given out. No information that discloses your identity will be released or published.

Compensation:

There is no compensation available for participation in this study, however your participation is appreciated. There will however be a prize, consisting of a reflective practice workbook, randomly drawn from all participants who complete the two interviews.

Voluntary participation:

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time.

Your rights as a participant:

Your rights as a participant are of paramount importance, and will be respected at all times. If you have any questions about your rights as a research participant or the conduct of the study you may contact the Office of Research Ethics at [REDACTED] or by email at ethics@uwo.ca.

Study Results:

You will have the option to receive a report of the findings of this study via email and to participate in potential follow-up aspects of the study. You may indicate your preferences to these options on the consent form that follows.

This letter is for you to keep. You will be given a copy of this letter of information and consent form once it has been signed.

You are encouraged to ask any questions about the study at any time. Your suggestions and concerns are important to us. Please feel free to contact the student-researcher any time at [REDACTED] to arrange a meeting at your convenience.

Informed Consent Form

Reflective practice and professional knowledge: A grounded theory study among Speech-Language Pathologists working in head and neck cancer rehabilitation

Study Investigator: Marie-Ève Caty, The University of Western Ontario

Co-Investigators: Dr. Elizabeth Anne Kinsella, & Dr. Philip C. Doyle, The University of Western

- Do you grant permission to be *audio recorded*?
Yes _____ No _____
- Do you grant permission to be *quoted* anonymously?
Yes _____ No _____
- Do you wish to *receive a report* of the final results of this study?
Yes _____ No _____ **If yes, please provide your personal information on the next page.**
- Would you be interested in *participating in follow-up work* related to reflective practice?
Yes _____ No _____ **If yes, please provide your personal information on the next page.**

I have read the Letter of Information and Consent Form, have had the nature of the study explained to me and I agree to participate. All questions have been answered to my satisfaction.

Study participant:

Name _____
(please print)

Signature _____

Date _____

Person Obtaining Informed Consent:

Name _____
(please print)

Signature _____

Date _____

We are requesting this contact information so that we can contact you in the future to send you a report of the results and/or make arrangements for follow-up work:

Name: _____

Address: _____
(Street address, apartment number)

(City) Postal Code: _____

Phone Number: (_____) _____

Email : _____

Appendix E: The University of Western Ontario Ethics Board for Health Sciences Research Involving Human Subjects (HSREB)'s Approval Notices



Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Anne Kinsella

Review Number: 18219E

Review Level: Delegated

Approved Local Adult Participants: 30

Approved Local Minor Participants: 0

Protocol Title: Reflective practice and professional knowledge: A grounded theory study of Speech-Language Pathologists working in head and neck cancer rehabilitation

Department & Institution: Occupational Therapy, University of Western Ontario

Sponsor:

Ethics Approval Date: July 19, 2011

Expiry Date: June 30, 2012

Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
UWO Protocol		
Other	Letter of Introduction	
Letter of Information & Consent		2011/06/24
Other	Email	

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The UWO HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

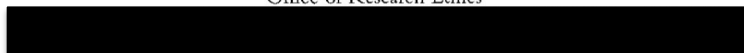

S _____

Ethics Officer to Contact for Further Information

Janice Sutherland	Grace Kelly	Shantel Walcott
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This is an official document. Please retain the original in your files.

The University of Western Ontario
Office of Research Ethics





Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Anne Kinsella
Review Number: 18219E
Review Level: Delegated
Approved Local Adult Participants: 30
Approved Local Minor Participants: 0
Protocol Title: Reflective practice and professional knowledge: A grounded theory study of Speech-Language Pathologists working in head and neck cancer rehabilitation
Department & Institution: Occupational Therapy, University of Western Ontario
Sponsor:
Ethics Approval Date: January 24, 2012 **Expiry Date:** June 30, 2012
Documents Reviewed & Approved & Documents Received for Information:

Document Name	Comments	Version Date
Change in Study Personnel	Suneet Cheema and Julia Vasarevic have been added as collaborators to the study.	

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

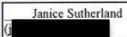
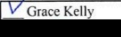
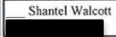
The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the UWO Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The UWO HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 0000940.

Signature 

Ethics Officer to Contact for Further Information

 Janice Sutherland	 Grace Kelly	 Shantel Walcott
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This is an official document. Please retain the original in your files.

The University of Western Ontario
Office of Research Ethics





Use of Human Participants - Ethics Approval Notice

Principal Investigator: Dr. Anne Kinsella

File Number:100824

Review Level:Delegated

Approved Local Adult Participants:30

Approved Local Minor Participants:0

Protocol Title:Reflective practice and professional knowledge: A grounded theory study of Speech-Language Pathologists working in head and neck cancer rehabilitation - 18219E

Department & Institution:Health Sciences\Occupational Therapy,Western University

Sponsor:

Ethics Approval Date:June 27, 2012 Expiry Date:December 31, 2012

Documents Reviewed & Approved & Documents Received for Information:

Document Name Comments

Version
Date

Revised Study End The study end date has been extended to December 31, 2012
Date to allow for project completion.

This is to notify you that The University of Western Ontario Research Ethics Board for Health Sciences Research Involving Human Subjects (HSREB) which is organized and operates according to the Tri-Council Policy Statement: Ethical Conduct of Research Involving Humans and the Health Canada/ICH Good Clinical Practice Practices: Consolidated Guidelines; and the applicable laws and regulations of Ontario has reviewed and granted approval to the above referenced revision(s) or amendment(s) on the approval date noted above. The membership of this REB also complies with the membership requirements for REB's as defined in Division 5 of the Food and Drug Regulations.

The ethics approval for this study shall remain valid until the expiry date noted above assuming timely and acceptable responses to the HSREB's periodic requests for surveillance and monitoring information. If you require an updated approval notice prior to that time you must request it using the University of Western Ontario Updated Approval Request Form.

Members of the HSREB who are named as investigators in research studies, or declare a conflict of interest, do not participate in discussion related to, nor vote on, such studies when they are presented to the HSREB.

The Chair of the HSREB is Dr. Joseph Gilbert. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

Signature

Ethics Officer to Contact for Further Information

Janice Sutherland	<input checked="" type="checkbox"/> Grace Kelly	Shantel Walcott
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This is an official document. Please retain the original in your files.

The University of Western Ontario
Office of Research Ethics

Appendix F: Copyright Release for Chapter 2

CJSLPA | RCOA

Canadian Journal of Speech-Language Pathology and Audiology
Revue canadienne d'orthophonie et d'audiologie

Permission to Reprint

Application submitted by : Marie-Ève Caty

Email: [REDACTED] Fax: [REDACTED] Phone: [REDACTED]

Date: November 5th, 2013

Requesting permission to reprint/utilize the identified material from CJSLPA:

Issue: 33 (4)

Author: Caty, M.È., Kinsella, E. A., & Doyle, P.

Article Title: Linking the art of practice in head and neck cancer rehabilitation with the scientist's art of research: A case study on reflective practice

Page: 183-188

For the following purpose:

To include as a chapter in my doctoral thesis entitled "Reflective practice and professional knowledge: A grounded theory study of Speech-Language Pathologists working in head and neck cancer rehabilitation".

Please note: This permission will only be granted on the condition that complete credit is given to the original publication.

Permission to reprint the above from the Canadian Journal of Speech-Language Pathology and Audiology is hereby granted: */*

[REDACTED]
Jessica Bedford, Director of
Communications and Marketing, CASLPA

November 5, 2013.
Date

Published by the Canadian Association of Speech-Language Pathologists and Audiologists



Curriculum Vitae

NAME Marie-Ève Caty

POST SECONDARY EDUCATION AND DEGREES

- 2014 Doctoral Program in Health and Rehabilitation Sciences (*Ph.D.*)**
Western University, Graduate Program in Health and Rehabilitation Sciences, Health Professional Education Field.
- 2002 Clinical Master's degree in Speech-Language Pathology (*M.P.O.*)**
Université de Montréal, École d'orthophonie et d'audiologie.
- 2001 Bachelor's degree in Speech-Language Pathology and Audiology (*B.Sc.*)**
Université de Montréal, École d'orthophonie et d'audiologie.

DISTINCTIONS/SCHOLARSHIPS/AWARDS

- 2013 Student Research Travel Award (SRTA)** (highest-rated ASHA Convention papers), American Speech-Language-Hearing Association.
- 2012– 2013 Ontario Graduate Scholarship Program (OGS)**, Ontario Ministry of Training, Colleges and Universities.
- 2011& 2012 Graduate Thesis Research Award**, Western University.
- 2009– 2010 Richard J. Schmeelk Fellowship (renewed)**, Schmeelk Canada Foundation.
- 2008– 2009 Richard J. Schmeelk Fellowship**, Schmeelk Canada Foundation.

CURRENT APPOINTMENT

As of June 1st 2013 Assistant Professor, Département d'orthophonie, Université du Québec à Trois-Rivières, Québec, Canada.

SELECTED WORK EXPERIENCE

TEACHING

- 2012– 2013 Clinical Tutor in Speech-Language Pathology**
Clinique Universitaire en Orthophonie et Audiologie. Université de Montréal.
- 2011 Graduate Course Co-Manager**
Health and Rehabilitation Sciences Graduate Program. Western University.
Course: HS 9610a- *Health Professional Education: Current Topics, Perspectives, and Research Issues*

- 2009– 2011 Teaching Assistant**
School of Communication Sciences and Disorders. Western University.
Courses: CSD 9650- *Resonance* and CSD 9020- *Fluency Disorders*.
- 2009– 2010 Clinical Educator**
H.A. Leeper Speech & Hearing Clinic, School of Communication Sciences and Disorders. Western University.

RESEARCH

- 2010– 2012 Research Assistant**
P.C. Doyle, Ph.D.. Voice Production & Perception Laboratory. Western University.
Study Title: Listeners' perception of alaryngeal voice quality: A repertory grid analysis.
- 2009– 2010 Graduate Research Assistant**
E.A. Kinsella, Ph.D. & A. Pitman, Ph.D.. Interdisciplinary Network for Scholarship in Professions' Research in Education (INSPIRE). Western University.

SCIENTIFIC CONTRIBUTIONS

SUMMARY

	Published	Accepted	Submitted	In Progress
Peer-reviewed articles	1	2	2	2
Contributions to a collective work and book chapter	1	2		
Refereed Conference Presentations and Abstracts in Peer-Reviewed Conference Proceedings	15			
Articles in professional or cultural journals without review committee	3			
Assessment and intervention materials	2			

DETAILS

- **Peer-reviewed articles**

1. **Caty, M.È.**, Kinsella, E. A., & Doyle, P. (2009). Linking the art of practice in head and neck cancer rehabilitation with the scientist's art of research: A case study on reflective practice. *Canadian Journal of Speech-Language Pathology and Audiology*, 33(4), 183-188.

2. **Caty, M.È.**, Kinsella, E.A., Doyle, P. (accepted). Reflective Practice in Speech-Language Pathology: A Scoping Review. Accepted to *International Journal of Speech-Language Pathology*.
3. **Caty, M.È.**, Kinsella, E.A., Doyle, P. (accepted). Pratique réflexive : de la théorie du « praticien réflexif » de Schön à une démarche réflexive dans le domaine de l'orthophonie. Accepted to *Revue Approches Inductives*.
4. **Caty, M.È.**, Kinsella, E.A., Doyle, P. (submitted). Reflective Practice in Speech-Language Pathology: Relevance for Practice and Education. Submitted to *International Journal of Speech-Language Pathology*.
5. **Caty, M.È.**, Kinsella, E.A., Doyle, P. (submitted). Reflective processes of practitioners in head and neck cancer rehabilitation: A grounded theory study. Submitted to *Advances in Health Sciences Education*.
6. **Caty, M.È.**, Kinsella, E.A., Doyle, P. (in progress). Reflective Practice: An Approach to Knowledge Generation in Speech-Language Pathology.
7. Day, A.M.B., **Caty, M.È.**, & Doyle, P.C. (in progress). Listener perceptions of alaryngeal voice quality: A repertory grid analysis.

- **Contributions to a collective work and book chapter**

1. Kinsella, E.A., **Caty, M.È.**, Ng, S., & Jenkins, K. (2012). Reflective practice in allied health: Theory and application. In Leona M. English (dir.), *Health and adult learning* (pp. 210-228). Toronto: University of Toronto Press.
2. Drolet, M.-J., Lalancette, M., et **Caty, M.-È.** (accepted). *ABC de l'argumentation, pour des professionnels de la santé*. Québec: Presse de l'Université du Québec.
3. **Caty, M.-È.** & Prodinger, B. (accepted). (Per-) forming in doctoral studies and research in health care: Kaleidoscoping our shared stories. In S. DeLuca (dir.), *Embodied research: Autoethnography and the lived-body in health and social care*. SENSE Publishers.

- **Refereed Conference Presentations and Abstracts in Peer-Reviewed Conference Proceedings**

1. **Caty, M.-È.**, Doyle, P.C. et Kinsella, E.A. (2013, Novembre). *How to "Learn on the Job"? Insight Into Reflective Practices in Speech-Language Pathology*. Paper presented at ASHA 2013 Annual Convention, Chicago, IL, USA.
2. **Caty, M.-È.**, Doyle, P.C., & Kinsella, E.A. (2011, November). *Integrating and advancing reflective practice for Speech-Language Pathologists' professional development*. Paper presented at ASHA 2011 Annual Convention, San Diego, CA, USA.

3. Day, A., **Caty, M.-È.** et Doyle, P.C. (2011, November). *Perceptions of alaryngeal voice quality: A repertory grid analysis*. Paper presented at ASHA 2011 Annual Convention, San Diego, CA, USA.
4. **Caty, M.-È.**, Kinsella, E.A., & Doyle, P.C. (2011, April). *A case for reflective practice in Speech-Language Pathology*. Paper presented at CASLPA Conference 2011, Montreal, QC, Canada.
5. **Caty, M.-È.** & Doyle, P.C. (2011, April). *Perception des femmes utilisant une voix trachéo-oesophagienne quant à leurs limitations au niveau vocal*. Poster presented at CASLPA Conference 2011, Montreal, QC, Canada.
6. **Caty, M.-È.** & Doyle, P.C. (2011, February). *Patient education and Quality of Life (QoL) in laryngeal cancer rehabilitation*. Poster presented at ARGC/FHS Symposium 2011, Western University, London, ON, Canada.
7. **Caty, M.-È.** (2010, December). *Knowledge generation: Staging the embodied practitioner*. Paper presented at Body/Practice- A Symposium, Charles Sturt University, Wagga Wagga, NSW, Australia.
8. Doyle, P.C., Skidmore, E., Senchuk, C., Bornbaum, C., Day, A.M.B., **Caty, M.-È.**, & Levee, T. (2010, November). Evaluation of listener comfort and voice severity in tracheoesophageal speech. Poster presented at ASHA 2010 Annual Convention, Philadelphia, PA, USA.
9. **Caty, M.-È.** & Doyle, P.C. (2010, May) *The value of patient education in laryngeal cancer rehabilitation and its influence on Health-Related Quality of Life (HRQoL)*. Poster presented at 12th World Congress of Psycho-oncology, Quebec, QC, Canada.
10. **Caty, M.-È.** (2009, October) *Advancing understanding about reflective practice: A case study*. Paper presented at the First Annual Research Symposium, Centre for Education Research & Innovation, Schulich School of Medicine & Dentistry, London, ON, Canada.
11. Ng, S. & **Caty, M.-È.** (2009, October). *A class on qualitative inquiry in evidence-based practice*. Paper presented at the First Annual Research Symposium, Centre for Education Research & Innovation, Schulich School of Medicine & Dentistry, London, ON, Canada.
12. **Caty, M.-È.** (2009, May). *Mapping reflective practice: examining the development of expertise in speech-language pathology within an interprofessional team*. Round table presented at the Engaging Reflection in Health Professional Education and Practice, London, ON, Canada.
13. Prodinger, B. & **Caty, M.-È.** (2009, May). *A duo-ethnographical approach: Engaging critical reflection and reflexivity on cultural transitions*. Round table presented at the Engaging Reflection in Health Professional Education and Practice, London, ON, Canada.
14. **Caty, M.-È.**, Kinsella, E.A., & Doyle, P.C. (2009, May). *Reflective practice and the development of professional expertise in head and neck cancer rehabilitation: Two clinical case studies*. Poster presented at CASLPA Conference 2009, London, ON, Canada.

15. **Caty, M.-È.**, Fortin, J., Lassonde, M., Vanasse, M., Lambert, J., Flanders, T., Goldberg, J., Marois, P., & Collet, J.-P. (2001, August). *Effet de l'oxygénothérapie hyperbare sur le langage des enfants atteints de paralysie cérébrale*. Paper presented at 25th International Speech and Voice Therapy Conference, Montreal, QC, Canada.

- **Articles in professional or cultural journals without review committee**

1. **Caty, M.-È.** (2011). International Association of Laryngectomy: Report from Kansas City's meeting (Part II). *Expression d'une Nouvelle Voix-Bulletin- périodique publié par la Fédération québécoise des Laryngectomisés affiliée à la Société canadienne du cancer*, 33(4), 4-5.
2. **Caty, M.-È.** (2011). International Association of Laryngectomy: Report from Kansas City's meeting (Part I). *Expression d'une Nouvelle Voix-Bulletin- périodique publié par la Fédération québécoise des Laryngectomisés affiliée à la Société canadienne du cancer*, 33(3), 4-5.
3. **Caty, M.-È.**, Boissonneault, J., Chaput, B., & Charbonneau, I. (2003-2011). *Questions fréquentes sur le langage*. Dans Doré, Nicole ; Le Hénaff, Danielle. « *Mieux vivre avec notre enfant de la grossesse à deux ans*, guide pratique pour les mères et les pères ». Québec, Institut national de santé publique du Québec, 2011. 736 pages.
<http://www.inspq.qc.ca/MieuxVivre/>

- **Assessment and intervention materials**

1. Doyle, P.C., **Caty, M.-È.**, & Cox, S. (2012). *Use of the Artificial Electronic Larynx in Postlaryngectomy Speech Rehabilitation*. In *Educational and Support Kit for the Laryngectomy and Family*. Santa Clara, CA : The Foundation for Voice Restoration.
2. **Caty, M.-È.** et collaboratrices (2007). *Répertoire d'exercices vocaux en orthophonie*. Montréal: Hôpital Maisonneuve-Rosemont.

SELECTED ACADEMIC SERVICE

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|-------------------|--|
| 2013– | Member of the Board of Directors. Association des Jeunes Bègues du Québec. |
| 2010– | Peer-Reviewer. <i>Canadian Journal of Speech-Language Pathology and Audiology & Reflective Practice: International and Multidisciplinary Perspectives</i> . |
| 2013 | Scientific reviewer. Research Ethics Committee. Mental Health Institute of Quebec. |
| 2010– 2011 | Accreditation Board Member (interim). Council for Accreditation of Canadian University Programs in Audiology and Speech-Language Pathology |
| 2011 | Planning Committee Member. HRS Graduate Research Forum- Stories Worth Sharing. Health and Rehabilitation Sciences Graduate Program, Western University. |